

Beyond their Borders

Evolution of foreign investment by pension funds





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Foreword ALFI



Denise Voss, Chairman of ALFI

Thanks to its long established track record in the global distribution of investment funds, Luxembourg is recognised as the axis point for international investors and asset managers seeking exposure to worldwide markets.

Luxembourg investment funds are sold to retail and institutional investors, including many pension funds, in more than 70 countries around the world. Asset management groups from more than 50 different countries have set up investment funds in Luxembourg and many pension funds consider them to be the ideal mechanism for accessing investment opportunities in many different asset classes worldwide.

However, pension funds regulations differ from one country to the other. In particular, some countries restrict the amount they can allocate to investment funds or foreign investments. Consequently, navigating the terrain of complex local requirements can be difficult for asset managers. ALFI, therefore, believes that a study providing more clarity on the global investments of pension funds will be beneficial to the asset management community.

In addition, as the baby boomer generation approaches retirement and life expectancy continues to improve, public sector pension liabilities will grow. This will lead to a drawdown of assets, but will also reinforce the need for greater personal savings and retirement income. Once investors understand the implications for their personal financial planning and goals, demand for capital preservation and income yielding strategies will increase, creating opportunities for new products and services.

One key objective defined by ALFI in its 2020 Ambition Plan is to help further connect investors with worldwide market opportunities. We trust that this report, commissioned by our association, will contribute to this objective and we hope you will find it helpful.

A handwritten signature in dark ink, appearing to read 'Denise Voss'.

Denise Voss

Foreword PwC



*Dariush Yazdani, Partner
PwC Market Research Centre*

The new millennium has changed the playing field for pension funds. There are significantly more people retiring today than there were even a decade ago and their numbers will continue to increase in the coming years. This is putting pressure on pension funds' investment strategies and calling into question their risk estimations. Moreover, the current economic scenario is characterised by low interest rates, which is forcing pension funds to rethink what constitutes the most sustainable formula to meet their long-term liabilities.

But even as pension fund managers scramble to adjust to the new normal, they are facing a future brimming with opportunities. The unique ability of pension funds to focus on long-term investments allows them to absorb short-term volatility while bearing market and liquidity risk through diversification – which entails a world of possibilities.

In this context, investing through investment funds can provide pension funds with a strong degree of diversification since they offer better geographical coverage as well as a comprehensive array of asset classes. In addition, they are highly liquid compared to other investment products and are strongly regulated.

In the following pages, we have drawn a detailed picture of the current pensions industry, highlighting the benefits pension funds can reap by utilising investment funds and investing beyond their borders, as well as the main regulatory challenges they will encounter when they do so.

A handwritten signature in black ink, appearing to read 'Dariush Yazdani'. The signature is fluid and cursive.

Dariush Yazdani

Introduction

Pension funds fulfil a critical role in the economy as they channel the savings of millions of people into investable financial assets and convert them into a post-retirement income. They represent the largest institutional investors at the global level with total AuM of USD 37.6tn in 2014¹, and their assets are set to reach USD 56.5tn² by 2020 as both developed and developing countries attempt to increase the portion of their populations covered by pensions.

Given their size in the world market, pension funds are a vital financial resource for millions of people. In fact, some countries' pension assets represent more than 100% of their national GDP. For instance, in the Netherlands, pension assets are equivalent to 197% of the national GDP; in the US they represent 146%, in Canada 142% and in Switzerland 117%. On a global basis, the average pension assets to GDP ratio stood at 75% in 2014.

However, at the heart of present day pension structures lies a demographic dilemma: low fertility rates combined with increasing life expectancy have created a situation in which the population of retirees is expanding while the number of people entering the workforce is falling.

The global population is ageing at an unprecedented rate (the number of people 60 years old or older is set to increase by 2.8% annually from 2025 to 2030³), and the worldwide old-age dependency ratio is forecasted to reach 25.4% in 2050, up from 11.7% in 2010⁴. In 2014, the average old-age dependency ratio in the largest pension markets in terms of AuM stood at 23%, with countries like Japan (42%) and Italy (33%) showing the highest figures.

As a result, the ageing population escalates pension liabilities, especially in countries with a large share of

Defined Benefits (DB) schemes, such as Switzerland, Canada, the Netherlands and Japan, which are among the most mature pension markets in the world. Demographic challenges are shifting government pension structures away from traditional DB schemes and “pay as you go” systems to Defined Contribution (DC) schemes. In a scenario where governments have to deal with a beneficiary population that lives longer while also bearing prolonged pay-out periods with inadequate contributions to cover them, the latter would be more sustainable.

This trend is leading to more dynamic thinking about how to manage fund adequacy. Although the US and Europe still have huge pools of DB pensions, they are gradually being overtaken by DC plans. Other parts of the world have already made the transition. In Australia, for example, 90% of the market is now DC, while in Chile the entire market is composed of DC schemes. In light of this, during the last ten years, DC assets have grown at a rate of 7% annually while DB assets grew at a slower pace (4.3%)⁶.

As the move from DB to DC shifts the risk to participants, there is increasing focus on how to achieve greater member engagement and a more secure retirement outcome for retirees. In addition, as the global population ages and pressure mounts on pensions to deliver liveable incomes to retired people, pension fund managers will need to increase the diversification of their portfolios by asset class as well as geographical exposure. And one of the most effective means of achieving diversification is through foreign exposure. In fact, pension funds are increasingly looking beyond their borders to address their needs; and they are doing so in a variety of ways.

When investing abroad, pension funds tend to adopt three different strategies since they need to develop a specific expertise in foreign markets. Establishing “outposts” in overseas markets is one way to gain foreign exposure. Setting up partnerships with asset managers that have expertise in particular foreign markets is another approach. Finally, investing in foreign funds is a common method for investing abroad. Investment funds are, in fact, one of the most convenient vehicles for gaining exposure to international assets. In effect, they are highly regulated and more liquid than the majority of other investment products, and they have the ability to provide broad global representation while spreading risk across hundreds of companies, sectors, and countries around the world.

In this regard, the UCITS⁷ product has had huge success since its inception in 1985. Now 30 years old, UCITS have gone from strength to strength, with over 36,000 UCITS funds and approximately EUR 9.7tn in assets as at year end 2014⁸. Due to the necessity to comply with a common European standard, UCITS are now regarded globally as very well regulated funds with robust risk management procedures and a strong emphasis on investor protection. As a result, the UCITS brand is recognised beyond the EU and UCITS products are well accepted in Asia, the Middle East and Latin America.

¹This figure encompasses the sample of the study which covers 29 of the largest pension markets in different regions including Australia, Belgium, Brazil, Canada, Chile, Colombia, Czech Republic, Denmark, Finland, France, Germany, Hong Kong, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, Norway, Peru, Poland, Portugal, Singapore, South Korea, Spain, Sweden, Switzerland, the UK and the US.

²PwC, *Asset Management 2020: A Brave New World*, 2013.

³PwC, *Real Estate 2020: Building the Future*, 2014.

⁴UN report *World Population Ageing 1950-2050*.

⁵See footnote 1.

⁶Towers Watson, *Global Pension Study 2015*, 2015.

⁷Undertakings for Collective Investment in Transferable Securities.

⁸EFAMA.

1. Asset Allocation of pension funds

Pension assets around the world reached USD 37.6tn at the end of 2014, compared to USD 21tn in 2008, with a 10.2% Compound Annual Growth Rate (CAGR) in that time period. Given their size in the world market, pension funds represent the largest institutional investor; Sovereign Wealth Funds' assets stood at USD 6.3tn in 2014, up from USD 4.1tn in 2008, with a 7.4% CAGR, and insurance companies' AuM achieved USD 26.7tn in 2014, up from USD 20.4tn in 2008.

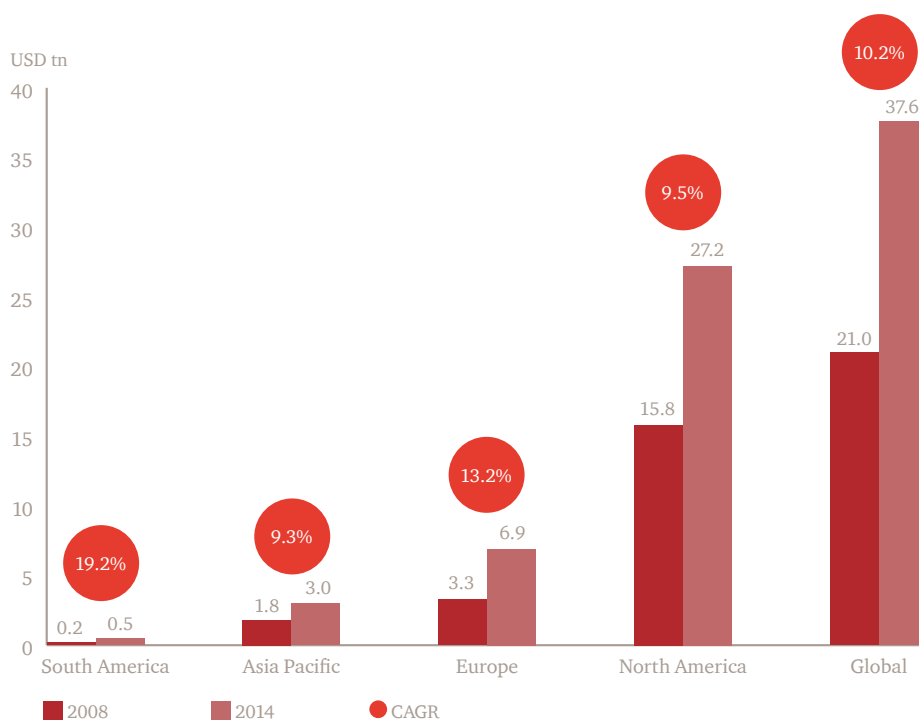
On a regional basis, North America's pension funds represented the largest assets at the global level having reached USD 27.2tn in 2014, up from USD 15.8tn in 2008. On the other hand, South America's pension funds showed the highest growth rate, boasting a 19.2% CAGR from 2008 to 2014 with assets soaring from USD 184bn to USD 528bn in the time period.

1.1 Asset Allocation by asset class

Globally, pension funds allocated 44% of their total portfolio to equities, 28% to bonds, 26% to alternatives and 2% to money market products in 2014.

At the regional level, North America's pension funds invested 48% of their total assets in equities (USD 13tn), 22% in bonds (USD 6tn), 29% in alternatives (USD 8tn) and 1% in money market products (USD 224bn). Equities investments grew at an 11% CAGR from 2008 to 2014, bonds at a 3.9% CAGR, alternatives at a 13.5% CAGR, while money market investments decreased at a -2% CAGR in that time period.

Regional pension assets growth from 2008 to 2014



Sources: PwC Market Research Centre, national associations and the OECD.

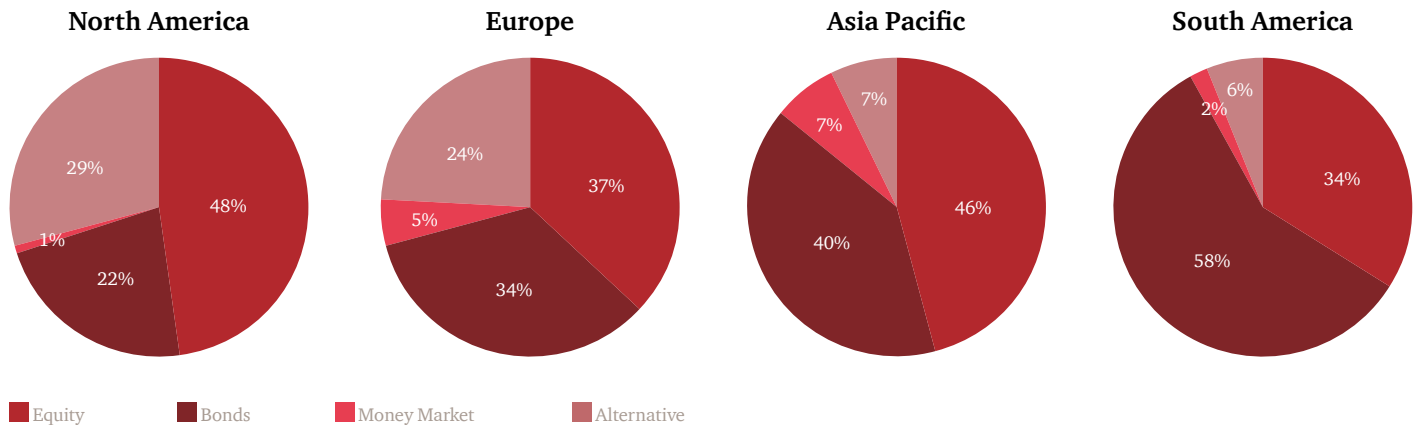
With regards to Europe, pension funds allocated 34% of their assets to bonds (USD 2.3tn), 37% to equities (USD 2.5tn), 24% to alternatives (USD 1.6tn) and 5% to money market products (USD 340bn) in 2014. Bond investments grew at a 14% CAGR from 2008 to 2014, equities at 11%, alternatives at 13%, and money market products at 12% during the same period.

In Asia Pacific, pension funds invested 40% of their total portfolio in bonds (USD 1.2tn), 46% in equities (USD 1.4tn), 7% in alternatives (USD 214bn) and 7% in money market products (USD 204bn) in 2014. Allocation to bonds decreased from

2008 to 2014 at a -1.4% CAGR, while equity investments increased by a 21.4% CAGR.

South America's pension funds directed 34% of their total assets to equities (USD 177bn), 58% to bonds (USD 295bn), 6% to alternatives (USD 31bn) and 2% money market investments (USD 13bn). In this context, equity is the asset class which experienced the strongest growth from 2008 to 2014: a 23% CAGR.

Regional pension funds' asset allocation in 2014



Sources: PwC Market Research Centre based on national pension associations and the OECD.

Equity

Equity remains the largest asset class within pension fund portfolios at the global level. As a matter of fact, in 2014, USD 16tn was allocated to this asset class, representing 44% of total global pension fund assets. This figure soared from USD 8.3tn in 2008, when it represented 41% of global pension fund assets, experiencing a 12% CAGR from 2008 to 2014.

The US, Canada, Japan and the Netherlands are the countries that pursued the largest equity investments in 2014, allocating USD 12tn, USD 986bn, USD 662bn and USD 582bn, respectively to this asset class. In this context, Japanese pension funds experienced the largest increase at the global level in the share of equities within their total portfolio, which increased by 21% from 2008 to 2014. Japan was followed by Finnish pension funds, whose share of equities in their total portfolio grew by 17% in the same time period. On the other hand, South Korea's pension funds showed the largest decline in their equity share, decreasing by 22% from 2008 to 2014.

Bonds

Pension funds worldwide allocated USD 9.7tn to this asset class in 2014, increasing from USD 7.2bn in 2008. Although the volume allocated to bonds increased at a 5% CAGR from 2008 to 2014, the share of bonds in pension asset portfolios has declined globally; it decreased from 34% of total pension fund portfolios in 2008 to 28% in 2014.

With regards to the largest pension markets at the global level, Japanese pension fund allocations to bonds decreased by 24% from 2008 to 2014. In fact, Japan allocated USD 1.3tn to bonds in 2008 (82% of its total portfolios), but just USD 873bn in 2014. US pension funds' share of bonds in the country's total portfolio decreased by 8% in the same time period. In 2008, this share made up 29% of America's total portfolio (USD4.1tn), but decreased to 21% (USD5.1tn) by 2014. Finally, Switzerland registered an 8% decrease between 2008 and 2014; the share of bonds within its total portfolio stood at 43% (USD 211bn) in 2008, but 36% (USD 276bn) in 2014.

Alternatives

The alternatives asset class has shown the strongest absolute increase from 2008 to 2014 within pension fund portfolios at the global level. In fact, the total amount allocated to alternatives jumped from USD 4.4tn in 2008 to USD 9.7tn in 2014, a 117% increase. The share of alternatives in pension asset portfolios also increased from 2008, when it equalled 21% of total pension fund portfolios globally, to 26% in 2014.

Among the largest markets, pension funds in the US increased their allocation to alternatives from USD 3.2tn in 2008, 23% of the country's total pension portfolio, to USD 7tn in 2014, 29% of total pension fund assets, with a 14% CAGR in the time period. UK pensions invested USD 363bn in alternatives in 2008 (25% of its total portfolio) and increased that to USD 925bn by 2014 (31% of its total portfolio), with a 17% CAGR in the time period. Finally, Canadian pension funds increased allocations to alternatives from USD 369bn in 2008 to USD 746bn in 2014, a 12% CAGR in the time span.

2. Foreign investments of pension funds

In 2008, foreign investments of pension funds for the majority of OECD countries (excluding the US) accounted for about 25% of their total pension investments, but jumped to almost 31% in 2014.

With regards to North America, pension funds' overseas investments stood, as an average, at 16%⁹ of the region's total pensions portfolio in 2008, reaching 21%¹⁰ in 2014. Canada's pension funds allocated 26% of their portfolio to overseas markets in 2008, and increased that number to 30% by 2014. Meanwhile, Mexican pension funds dedicated just 6% of their total portfolio to foreign investment in 2008, but this figure doubled in six years to reach 12% in 2014.

In Europe, the average percentage of pension fund portfolios allocated to foreign markets increased from 32% in 2008 to 34% in 2014. In this context, the Netherlands, Finland and Portugal are the countries that have been investing the highest percentages of their pension fund portfolios abroad in the last six years. Foreign investment of Dutch pension funds, in fact, reached 76% of the country's total portfolio in 2014, climbing from 73% in 2008. Finland allocated 64% of total assets to foreign markets in 2008 and increased that to 74% in 2014. Portuguese pension funds directed 57% of total portfolios overseas in 2014, soaring from 48% in 2010.

Asia Pacific's pension funds invested, on average, 19% of the region's total portfolio in foreign markets in 2008 and expanded that number to 31% in 2014. Hong Kong and Japan are the most aggressive investors in overseas markets on a regional basis. The percentage of Hong Kong's pension fund portfolio allocated abroad decreased slightly

from 40% in 2008 to 39% in 2014, while Japanese pension fund allocations to foreign markets rose from 16% in 2008 to 32% in 2014.

In South America, Chile and Peru are the most aggressive countries in terms of foreign investments in the region, with Chile allocating 44% of total pension assets to foreign markets in 2014 and Peru investing 41% that year. By contrast, Brazil invested less than 1% in foreign markets in 2014 due to stringent regulatory barriers which are beginning to soften.

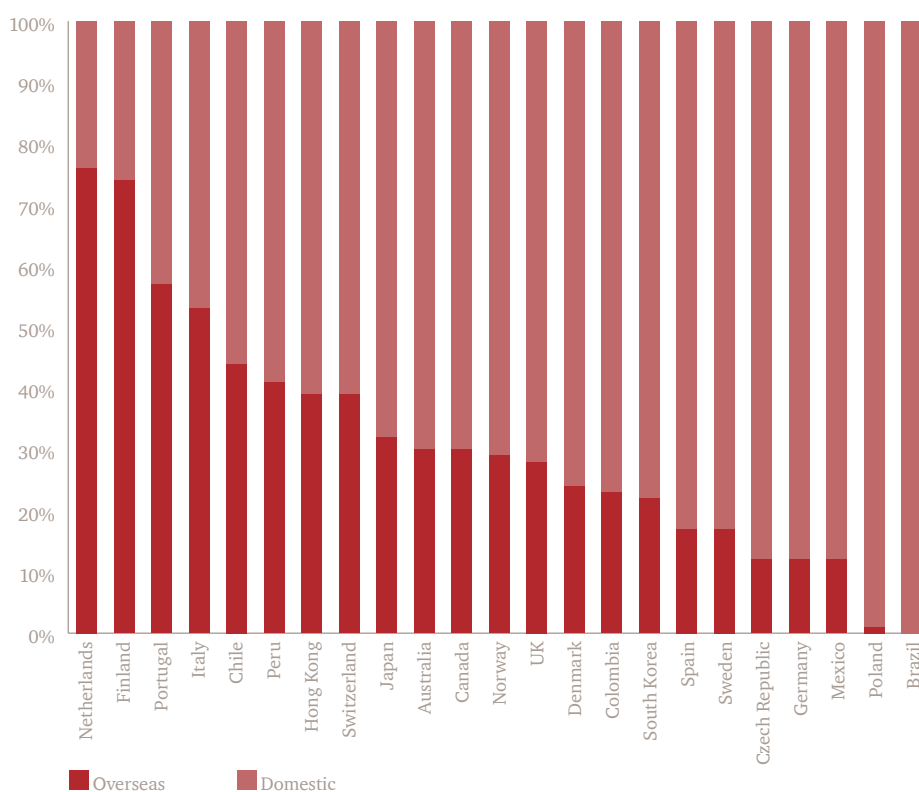
At the country level, Dutch, Finnish, Portuguese and Italian pension funds are the most aggressive investors in overseas markets at the global level, while countries like Poland allocate only a small portion of their assets abroad due to regulatory barriers.

All countries of our sample have been increasing the portion of their pension fund assets allocated to foreign markets with the exception of the UK, which has reduced this percentage from 33% in 2008 to 28% in 2014, Czech Republic, which curtailed investments from 16% to 12%, and Hong Kong which cut back investments from 40% to 39% during that timeframe.

⁹This figure does not comprise the US market as data are not readily available.

¹⁰Ibid.

Overseas investments of pension funds for selected countries in 2014



Sources: PwC Market Research Centre, national associations and the OECD.

2.1 Motivations for investing abroad

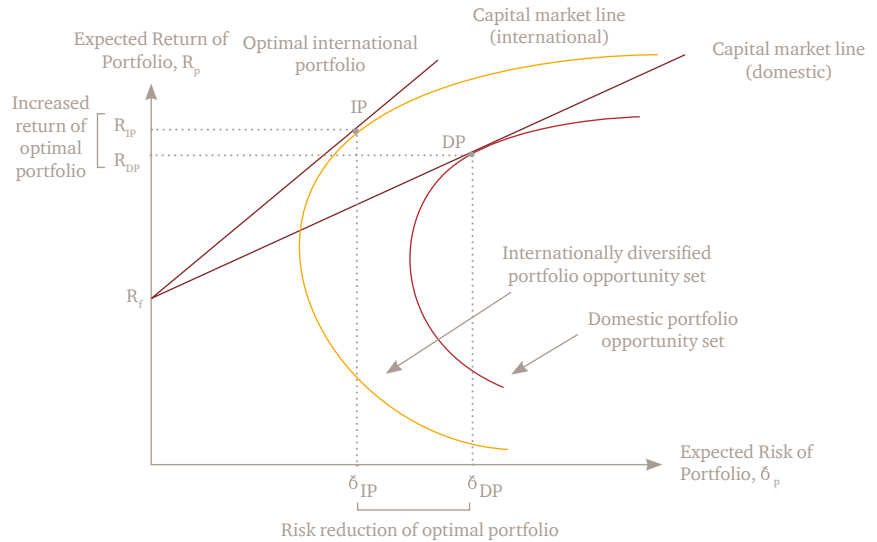
The reasons for including foreign exposure in pension strategies vary depending on factors like risk tolerance, currency fluctuations, inflation and local market conditions, but pension fund managers invest in foreign markets mainly as a way to increase returns and reduce volatility.

One of the primary reasons pension fund managers invest in foreign assets is because they offer further diversification. Investors looking to diversify a portfolio in order to realise greater returns or to hedge risks associated with poorly diversified investments can look to the global markets to achieve their goals.

This strategy is based on the modern portfolio theory of finance, which attempts to maximise returns or minimise risk by carefully choosing proportions of various assets. For example, if the investor's choices are expanded to include an internationally diversified set of securities, the portfolio set of securities shifts upward and to the left (see graph).

This new opportunity set allows the investor to optimise the portfolio in a way that would not be possible solely with domestic assets.

The benefit of diversifying investment portfolios internationally



Source: M. Moffett, Fundamentals of multinational finance, 3rd Edition

In countries where the currency fluctuates, investments in the local market are subject to volatility. By investing overseas, pension fund managers can hedge currency rate changes. Likewise, high inflation can motivate managers to invest in assets abroad. Those located in countries with relatively stable markets, however, may be driven to foreign exposure in search of higher returns or increased diversification, which would decrease the risk they may be taking in alternative investments. Finally, pension funds in smaller, more limited markets will often look outside of their country to meet investment goals.

2.2 The regulatory process for investing abroad

With regards to regulatory barriers, the majority of OECD countries do not set limits on overseas pension

investments. However, some have established maximum percentages that can be invested in non-OECD or non-EU countries (i.e. Denmark, Finland and Italy), a number of countries have

set limits on pension investments in foreign currencies (i.e. Portugal, Poland and Switzerland), while others impose limits on specific asset classes¹¹ (i.e. Chile, Norway and Mexico).

Regulations on foreign investments for selected countries

Countries	Global investment limit in foreign assets
Australia	• No limit.
Belgium	• No limit.
Brazil	• 10%; • Real estate, Private investment funds and loans are not allowed; • Bonds, retail investment funds and bank deposits are allowed only through local retail investments in foreign assets; • Direct equity investments are limited to Brazilian Depository Receipts (BDR) and to stocks listed in the MERCOSUR capital markets; • Indirect equity investments are allowed through local retail investments with foreign assets.
Canada	• No limit.
Czech Republic	• No limit.
Chile	• Joint limit for all funds: 80%; • 100%; 90%; 75%; 45%; and 35% for funds A, B, C, D and E, respectively.
Colombia	• No specific limit for each type of investment; • Maximum limit: 40% (Fund A and D), 60% (Fund B), 70% (Fund C); • Additional requirements apply in equity, bond, retail and private investment funds.
Denmark	• No limit for OECD countries.
Germany	• No limit; where certain legal risks can arise, must be kept at prudent level.
Finland	• 10% for non-OECD countries - Voluntary pension plans; • 20% for non-OECD countries - Statutory pension plans.
Hong Kong	• At least 30% in HKD denominated investment.
Ireland	• No limit.
Italy	• Securities (debts and equities) issued by non-OECD residents: 5%; • 0% if not traded on regulated markets.
Japan	• No limit.
Luxembourg	• No limit.
Mexico	• Max 20% regardless of asset classes; • Additional asset classes requirement applies.
Netherlands	• No limit.
Norway	• No limit.
Peru	• 42%.
Poland	• OPF: MAX 10% in 2014; 20% since 2015; 30% since 2016; • EPF: MAX 30% in foreign currency.
Portugal	• 30% limit on investment in a different currency from that in which responsibilities are denominated. 15% limit for investment in assets not traded in an EU or OECD regulated market. For PPR pension funds, the limit is 10%.
South Korea	• 30% - 70%.
Spain	• No limit.
Sweden	• No limit.
Switzerland	• Max 30% in foreign currency (hedging allowed), could be extended if under prudent management.
United Kingdom	• No limit.
United States	• No general limit. Some limit on equity, real estate and bonds.

Sources: PwC Market Research Centre, national associations and the OECD.

Some countries are currently modifying their local legal framework and softening the barriers for pension funds to invest beyond their borders.

For instance, prior to 2009, Brazilian pension fund investments were limited to only 3% in foreign assets and they were permitted to invest only through retail investment funds. But in 2009, the Brazilian Monetary Council

(CMN) increased the limit on foreign investments to 10%. However, Brazilian pension funds currently invest less than 1% in foreign assets.

On the other hand, prior to 2010, Chilean pension funds were allowed to invest 65% of their portfolios in foreign assets, but a reform, approved four years ago, now permits them to invest 80% in foreign assets.

In Europe, Poland also recently modified its regulatory framework with regards to pension funds. According to a bill issued in 2015, local OPFs (open pension funds) are allowed to invest a maximum of 20% of their total assets abroad, an increase from the prior limit of 5%. That limit is expected to reach 30% by next year.

¹¹ OECD

3. Conclusion and looking forward

3.1 Best practices for investing abroad

When investing abroad, pension funds favour equity investments. However, this strategy presupposes a specific adroitness in a wide variety of international markets. Pension funds can adopt multiple approaches to achieve this expertise and vis-a-vis increase their foreign exposure and diversification.

Developing asset management teams abroad

Establishing “outposts” in specific markets abroad is one of the strategies for gaining foreign exposure. In 2011, Norges Bank Investment Management, which manages the Government Pension Fund Global (GPF) for Norway, established a subsidiary in Luxembourg to oversee direct and indirect real estate investments in mainland Europe¹². South Korean National Pension Service (NPS), seeking to expand its overseas investments, opened an office in London in 2012¹³ followed by another in Singapore three years later¹⁴.

Alberta Investment Management Corp., Canada’s fifth-largest pension fund manager by assets, recently opened an office in London in order

to optimise its investments abroad. The fund’s first office outside of Canada is focusing on private European assets in the UK and across Europe¹⁵. The pension fund manager is looking to the London office to provide better access to new ventures. This is not the first time Canada has set up operations beyond its own borders.

OPSEU Pension Trust, one of Canada’s largest pension fund managers, also opened an office in Sydney¹⁶ in 2013. That year, the Ontario Teachers’ Pension Plan, which invests the retirement savings of 300,000 active and retired teachers in Canada’s most-populous province, opened its doors in Hong Kong to boost strategic Asian investments¹⁷. Similarly, the Canada Pension Plan Investment Board (CPPIB) launched new offices in New York and Sao Paulo in 2014¹⁸, while Dutch pension fund manager PGGM partnered with Legal & General Capital, the UK’s premier pension fund asset manager, to launch a joint venture in London in January 2015¹⁹.

Acquiring or partnering with asset managers

Another strategy includes acquisitions or partnerships with asset managers that have expertise in foreign markets. In 2012, Fidante Partners, which manages the Australian government’s pensions, bought a significant stake in MIR Investment Management, a specialist in Asia-Pacific equities²⁰. This was the eleventh investment Fidante Partners made in a boutique firm, and the transaction allowed it to diversify investments outside of the Australian stock market.

In Australia, thirty major non-profit pension funds collaboratively own IFM Investors. It is one of the country’s biggest investment firms with more than USD 50bn in assets across infrastructure, debt, equities and private capital. With a presence in New York, London, Berlin and Tokyo, IFM Investors offers its shareholders a global investment perspective.

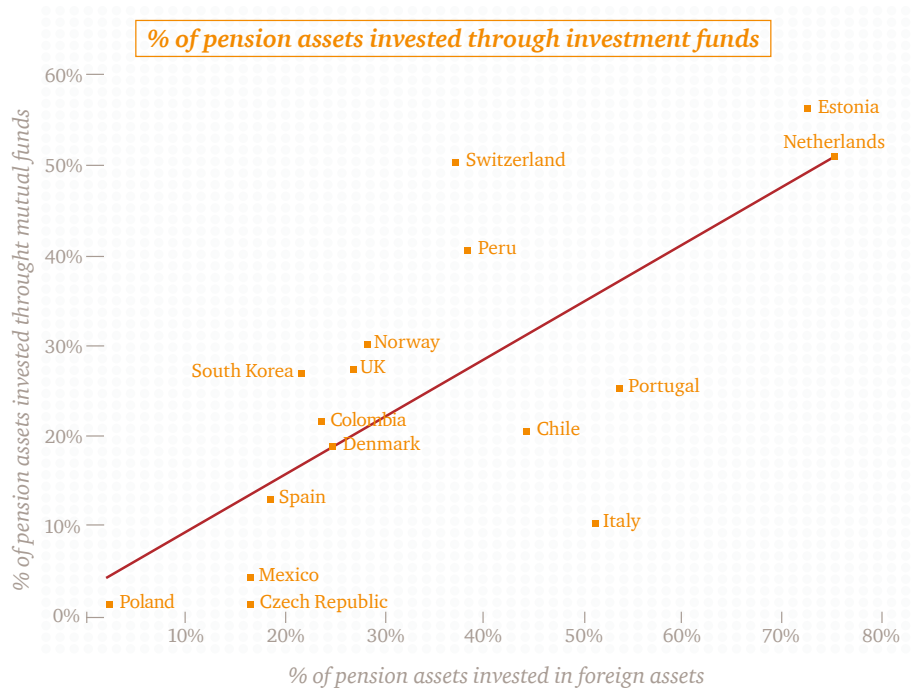
In 2013, Norges Bank Investment Management bought 49.9% of five office properties in the US, its first investment in the country, through a joint venture with TIAA-CREF²¹. And in 2015, CPPIB of Canada partnered with Unibail-Rodamco to grow its German retail real estate platform²² and announced plans to acquire G.E.’s private equity lending unit in the US²³.

Investing in foreign funds

Investing in foreign funds is another key way to invest abroad. Nearly all mature pension markets tend to use investment funds when investing a large percentage of their assets abroad because they are one of the most effective and convenient vehicles for gaining exposure to international assets. These funds are more liquid than most other investment products and expose the investor to extensive global assets that are not always available in a domestic market. Moreover, investment funds distribute risk across myriad companies, sectors and countries around the world. In addition, they are highly regulated – a further protection for the investor.

We have observed a correlation (0.75) between indirect investments through investment funds and foreign investments (see graph).

Foreign Investments through mutual funds



Source: PwC analysis based on OECD, Towers Watson and Cerulli.

¹² NBIM's website.

¹³ Gov.uk, Boost to UK infrastructure as Korean multi-billion pound pension fund makes UK move, March 2012.

¹⁴ Yonhap, S. Korea's public pension fund to open Singapore office, January 2015.

¹⁵ Bloomberg, Alberta Pension Fund opens its first foreign office in London, January 2014.

¹⁶ Osler, The Leading Role of Canadian Pension Funds at Home and Abroad, January 2014.

¹⁷ Ontario Teachers' Pension Plan's web site.

¹⁸ Reuters, New Sao Paulo office will focus on long-term investment opportunities in Latin America, February 2014.

¹⁹ PGGM's website.

²⁰ Citywire, Australian pension manager acquires stake in Asia boutique, May 2012.

²¹ Norges Bank Investment Management Press Release, February 2013.

²² CPPIB press release, May 2015.

²³ The New York Times, G.E. to Sell Buyout Financing Business for \$12 Billion, June 2015.

During the last decade, pension schemes in OECD countries have been increasingly using indirect investments. For instance, in 2014, about 32% of global pension assets (both domestic and foreign) were invested through investment funds with mature pension markets like the Netherlands (50%) and Switzerland (50%) directing at least a half of their investments to investment funds.

Developing markets are also joining this trend. Peruvian pension funds, for example, invested USD 15.6bn through investment funds in 2014, up from USD 3.4bn in 2010, a 46.5% CAGR over just four years.

At the regional level, North America's pension funds invested, on average, 19% of the country's total pension fund portfolio through investment funds in 2014, up from 16% in 2008.

In Europe, the average percentage of pension fund portfolios invested through investment funds stood at 19% in 2008 and reached 31% in 2014. In 2014, the highest portion of pension fund assets invested through investment funds in Europe were achieved by Belgium (71%), Sweden (58%) and the Netherlands (50%).

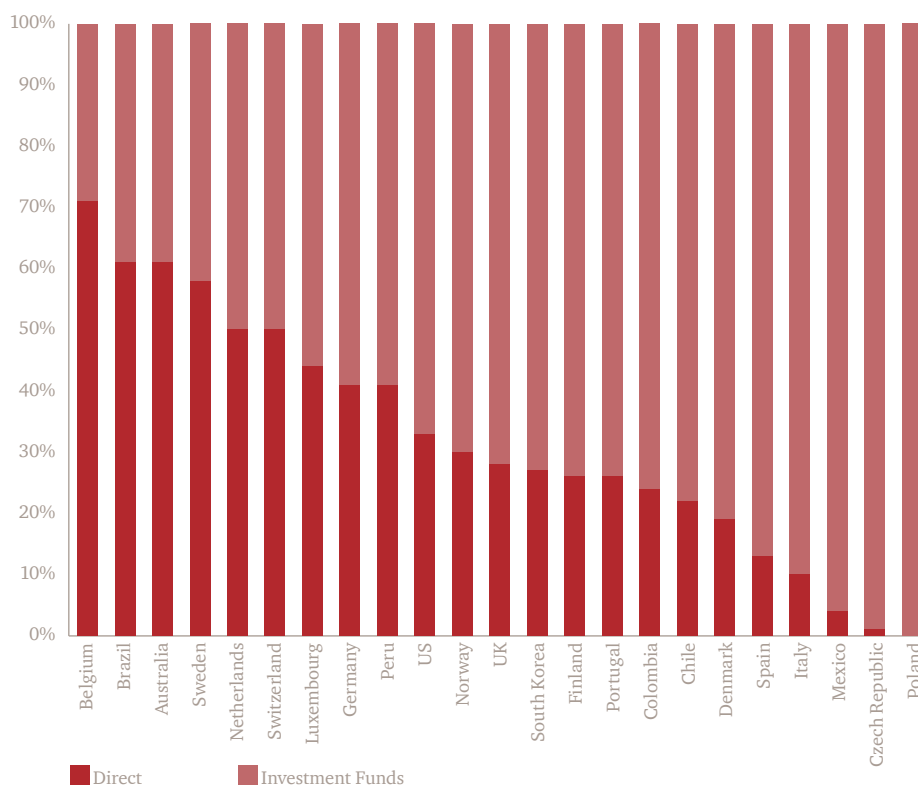
In Asia Pacific, Australia is the country that invests the most through investment funds. The percentage of Australian pension fund assets invested indirectly jumped from 56% in 2008 to 61% in 2014.

With regards to Latin America's pension funds, Brazil is the country that allocates the highest percentage of its total pension fund portfolio indirectly; pension fund assets allocated through investment funds climbed from 57% in 2008 to 61% in 2014, however, these were mainly domestic funds due to Brazil's regulatory limits.

We expect this trend to continue, both for well-developed and less-developed markets. For the largest pension markets, such as the US and the UK, passive investments are gaining pace compared to active management strategies and investment funds as a vehicle will play a more important role in the future.

For less developed pension markets, we expect to see higher usage of investment funds as they are the most convenient and most cost-efficient vehicles for investing beyond borders. Developing countries will follow the move of Chilean pension funds, which have been achieving higher diversification through the use of UCITS funds. In fact, an array of UCITS products can be found in recognised international centres – such as Luxembourg, which is the first domicile for cross-border UCITS funds.

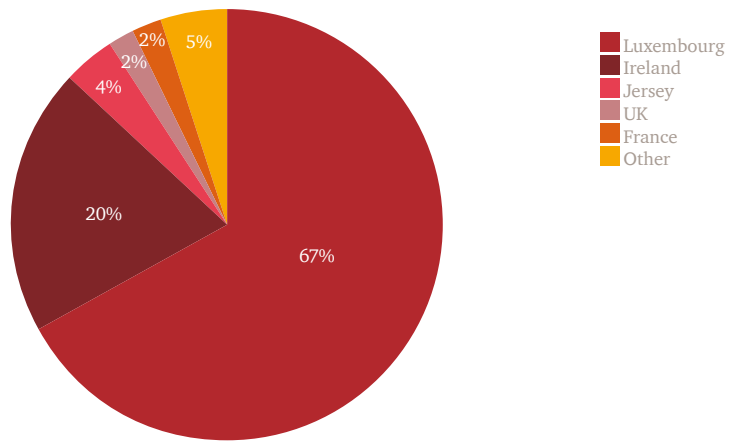
Use of Investment Funds by Pension Funds for selected countries



Sources: PwC Market Research Centre, national associations and the OECD.

In addition, governments in most countries worldwide offer specific tax incentives for retirement products or tax exemption on investment fund dividends and capital gains, but tax benefits and eligibility vary substantially from one country to the next. In certain scenarios, investment funds could be taxed in the distributing country of the underlying investments. In conclusion, taking into account the mentioned challenges, such as regulatory and fiscal limitations, and the expertise needed in foreign markets, investing through investment funds can provide pension funds with a substantial degree of liquidity, further diversification and a high level of investor protection.

Domicile share of authorisations for cross-border distribution



Source: PwC Market Research Centre.

Fact Sheets by country

Summary of the countries' main pension fund indicators

Country	Market size (USD bn)	Pension assets/GDP	Defined Benefit schemes	Old-age dependency ratio	Foreign investments	Regulatory limit on foreign investments	Alternative investment	Investment funds
Australia	1,038.1	87%	10%	22%	30%	No limit	16%	61%
Belgium	26.8	6%	74%	28%	N/A	No limit	10%	71%
Brazil	252.8	12%	72%	11%	<1%	10%	11%	61%
Canada	2,424.7	142%	97%	23%	30%	No limit	31%	N/A
Chile	165.4	68%	0%	15%	44%	Up to 80%	0.1%	22%
Colombia	74.2	23%	36%	10%	23%	40% to 70%	5%	24%
Czech Republic	14.3	8%	0%	25%	12%	No limit	3%	1%
Denmark	276.4	89%	7%	28%	24%	No limit for OECD countries	9%	19%
Finland	208.7	85%	100%	31%	74%	10-20% non-OECD	13%	26%
Germany	223.5	6%	100%	32%	12%	No limit	40%	41%
Hong Kong	110.7	35%	12%	20%	39%	30% in HKD assets	N/A	N/A
Italy	178.6	8%	7%	33%	53%	No limit for OECD countries	32%	10%
Japan	1,520.7	37%	97%	42%	32%	No limit	N/A	N/A
Luxembourg	1.7	3%	80%	21%	N/A	No limit	10%	44%
Mexico	197.0	17%	13%	10%	12%	20%	0.3%	4%
Netherlands	1,550.1	197%	92%	26%	76%	No limit	16%	50%*
Norway	35.6	8%	43%	25%	29%	No limit	5%	30%
Peru	38.3	20%	0%	10%	41%	42%	0%	41%
Poland	98.7	18%	0%	21%	1%	5%	<1%	<1%
Portugal	20.4	9%	85%	29%	57%	No limit for Euro zone	24%	26%
South Korea	426.5	31%	73%	17%	22%	30%-70%	10%	27%
Spain	180.4	14%	28%	27%	17%	No limit	11%	13%
Sweden	354.1	71%	16%	31%	17%	No limit	6%	58%
Switzerland	768.1	117%	100%	26%	39%	30% foreign currency	27%	50%
United Kingdom	2,979.7	107%	72%	28%	28%	No limit	31%	28%
United States	24,553.0	146%	35%	21%	N/A	No limit	29%	33%

* Investment funds + mandates



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
87%	10%	22%	30%	No limit	16%	61%

Overview of Australia's pension funds

Australian pension assets were equivalent to 87% of the country's AUD 1.6tn GDP at year end 2014. The ratio of pension assets to GDP has been increasing rapidly during the last five quarters as pension assets have grown much faster than GDP from December 2013 to March 2015.

Total assets and asset allocation

The pension market in Australia is well developed with AuM of more than AUD 1.3tn (USD 1tn) in March 2015, and having achieved a growth rate of 17.4% from 2013 to March 2015. The market is comprised of 258 pension funds, with the largest ten pension funds holding 39.2% of total pension assets.

In 2015, 90% of Australian pension schemes are Defined Contribution (DC) schemes and only 10% are Defined Benefit (DB).

The asset allocation of Australian pension funds is diversified with 52% invested in equities, 19% in bonds, 13% in money market products and 16% in alternative investments (mainly real estate, infrastructure and hedge funds). From September 2014 to March 2015, AUD 26.6bn has been invested in hedge funds.

The assets of Australian pension funds allocated to equities are the equivalent of 51% of the total market capitalisation of listed domestic companies. One of the particularities of the Australian market is that 87% of total equities held by Australian pension funds are domestic.

Foreign investments

According to the OECD, Australia does not set any quantitative limit on overall foreign investments or any specific asset classes for pension funds. If they choose to, pension funds in Australia can invest 100% in foreign equities, bonds and investment funds. Currently, Australian pension funds allocate 30% of their portfolios to foreign assets, compared to 26% in 2013.

Allocation to investment funds

Pension funds in Australia invest approximately 39% of their assets directly and 61% through investment funds.

Future trends

In light of an increasing old-age dependency ratio (22% in 2014), Australian pension funds have already taken appropriate measures to diversify their investment portfolios in terms of assets class (16% in alternatives) and geographical exposure (30% in foreign investments). Based on past data and thanks to the absence of regulatory limits for foreign investments, we expect the relative size of total foreign investments to maintain slow but steady growth. The share of alternative investments should also remain high.

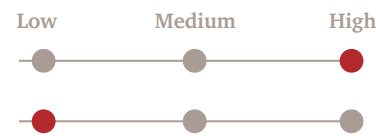
Despite the significant proportion of investment funds used by the Australian pension system (61%), the opportunities for UCITS are limited as only 43 cross-border funds were distributed in Australia as at the end of 2014.

Maturity of Pensions industry

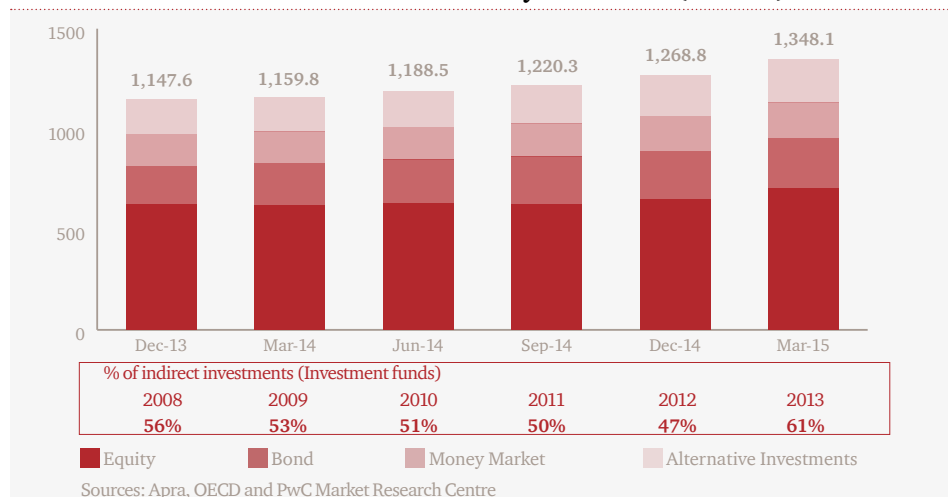
Pension assets/GDP : 87%

Size of domestic equity market

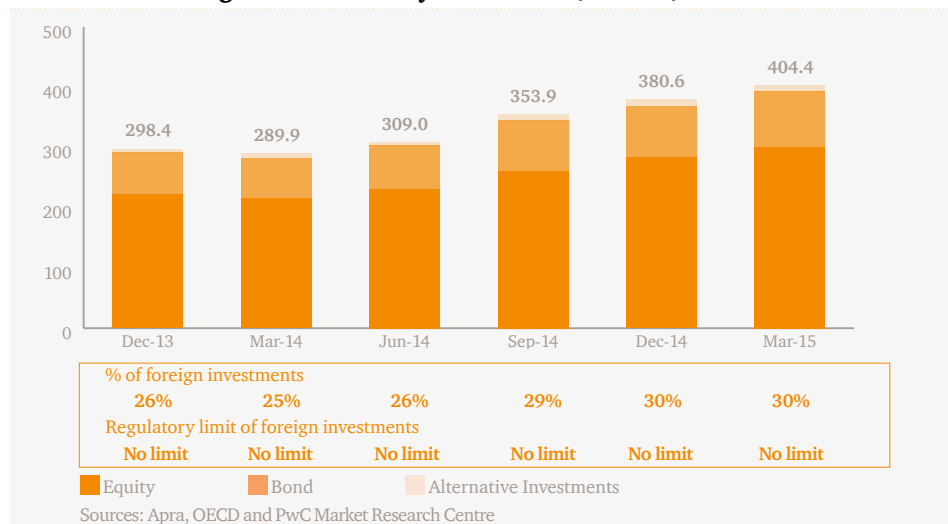
Pension allocation to equities/domestic market cap ratio: 51%



Evolution of Total Assets of Pension Funds by Asset Class (AUD bn)



Evolution of Foreign Investments by Asset Class (AUD bn)



Largest Pension Funds in Australia

#	Pension fund	AuM 2014 (AUD bn)	Market share (2014)
1	Future Fund	105.2	8.3%
2	AustralianSuper	79.2	6.2%
3	QSuper	52.2	4.1%
4	First State Super	48.4	3.8%
5	UniSuper	44.5	3.5%
6	State Super	43.1	3.4%
7	CSC	34.6	2.7%
8	REST	32.8	2.6%
9	HESTA	29.2	2.3%
10	Sunsuper	29.2	2.3%
	Total	498.4	39.2%

Sources: Towers Watson and PwC Market Research Centre

Sources: OECD, IMF, World Bank, ICI, Financial Services Council Australia, PwC Market Research Centre and Global Fund Distribution Poster 2015



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
6%	74%	28%	n.a.	No limit	10%	71%

Overview of Belgium's pension funds

Belgian pension assets were equivalent to 6% of the country's EUR 402bn GDP at year end 2014. The political crisis that Belgium encountered during the last few years is partly responsible for the lack of momentum in pension reforms. The ratio of pension assets to GDP recently increased as pension assets grew faster than GDP with a 8.5% CAGR from 2010 to 2014 compared to a lower GDP CAGR (2.4%) in the same period.

Total assets and asset allocation

The pension market in Belgium owns a high proportion of Defined Benefits (DB) schemes, which reached 74% in 2014. That year, pension fund AuM reached EUR 22.1bn (USD 26.8bn). The market is partially concentrated, with the three largest pension funds holding more than 40% of total pension assets.

The asset allocation of Belgian pension funds is well diversified with 41% in shares, 45% in bonds, 4% in money market products and 10% in alternative investments (mainly real estate, loans and derivatives). The share of alternative investments has remained stable in recent years.

The assets of Belgian pension funds allocated to equities are equivalent to 6% of the total market capitalisation of listed domestic companies.

Foreign investments

Belgium does not set any quantitative limit on overall foreign investments or any specific asset classes in pension funds. However, data on Belgium pension funds' foreign investments is not readily available, according to the Financial Services and Markets Authority (FSMA).

Allocation to investment funds

Pension funds in Belgium invest heavily through investment funds and have consistently done so during the past four years. In 2014, 71% of Belgian pension funds' assets were invested through investment funds. Bonds remain the largest share, closely followed by equities. Alternative investments saw a gradual increase from 3% in 2010 to 4% in 2014.

Future trends

Due to a critically high and increasing old-age dependency ratio (28% in 2014), and a high DB/DC ratio, we expect Belgian pension funds to pursue diversification both domestically and internationally.

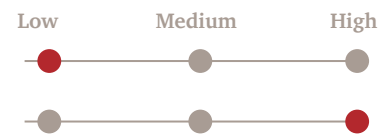
Belgium appears to be a promising market for foreign investment funds. With already 71% of pension funds' assets allocated to investment funds, Belgium is an important market in terms of UCITS penetration (2,589 registrations as at year end 2014).

Maturity of Pensions industry

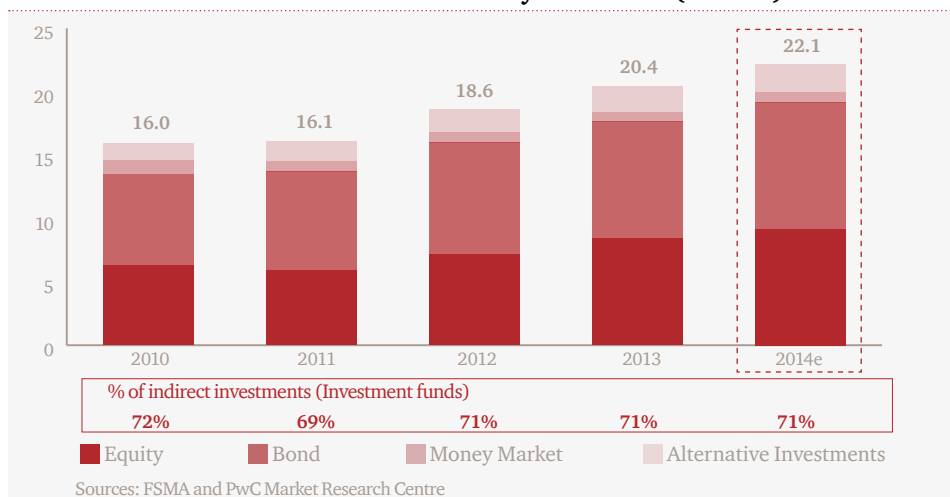
Pension assets/GDP : 6%

Size of domestic equity market

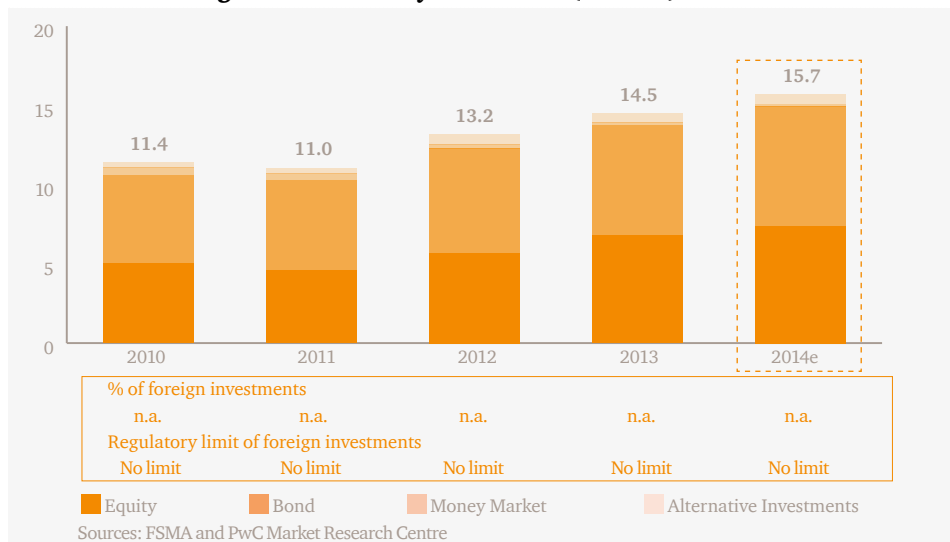
Pension allocation to equities/domestic market cap ratio: 6%



Evolution of Total Assets of Pension Funds by Asset Class (EUR bn)



Evolution of Foreign Investments by Asset Class (EUR bn)



Largest Pension Funds in Belgium

#	Pension fund	Investable AuM 2014 (EUR bn)	Market share (2014e)
1	Zilverfonds	20.2	Reserve Fund
2	Anheuser-Busch InBev NV	4.7	21.2%
3	KBC Group SA	2.9	13.1%
4	Solvay SA	1.8	8.1%
5	Amonis	1.5	6.7%
6	Alcatel-Lucent Bell N.V	1.1	4.9%
7	Groupe Bruxelles Lambert SA	1.0	4.5%
8	Etex Group SA	1.0	4.5%
9	Ogéó Fund	0.9	4%
Total		14.9	67.0%



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
12%	72%	11%	<1%	10%	11%	61%

Overview of Brazil's pension funds

Brazilian pension assets were equivalent to 12% of the country's BRL 5.5tn GDP at year end 2014. This ratio of pension assets to GDP is decreasing as pension assets have been growing at a 6-year CAGR of 8.2%, slower than domestic GDP (6-year CAGR of 10.1%).

Total assets and asset allocation

The pension market in Brazil is not well developed, with AuM of about BRL 672.1bn (USD 252.8bn) in 2014. Moreover, the market is concentrated with the largest 10 pension funds holding more than 60% of total pension assets. The Brazilian pension fund market shows a high proportion of Defined Benefits (DB) schemes: 72% of Brazilian pensions are DB schemes. The asset allocation of Brazilian pension funds is not well diversified; 25% of assets are invested in equities, 60% in bonds, 4% in money market and 11% in alternative investments (mainly real estate and loans).

Foreign investments

Prior to 2009, Brazilian pension funds were limited to investments of only 3% in foreign assets and permitted to invest only through retail investment funds.

In 2009, the Brazilian Monetary Council (CMN) increased the maximum limit on foreign investments to 10%. However, Brazilian pension funds currently invest less than 1% in foreign assets.

Allocation to investment funds

Brazilian pension funds can only invest in most asset classes through local investment funds. Pension funds in Brazil invest approximately 61% of their assets through local investment funds. Bond funds remain the largest asset class within investment funds, accounting for 78%. While bond funds have increased their market share in pension fund portfolios, equity funds have decreased from 26% in 2008 to 21% in 2014. Real estate accounted for only 1% of total investment funds assets in 2014.

Future trends

We expect foreign investments to grow in the coming years due to a softening of foreign investment limits.

With an increasing old-age dependency ratio (11% in 2014) and a high but decreasing DB/DC ratio, we expect Brazilian pension funds to increase their diversification by investing in (foreign) equities and alternative assets to meet their growing pension liabilities.

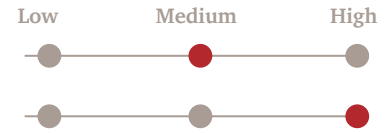
At this stage, the Brazilian market is still closed to foreign investment funds.

Maturity of Pensions industry

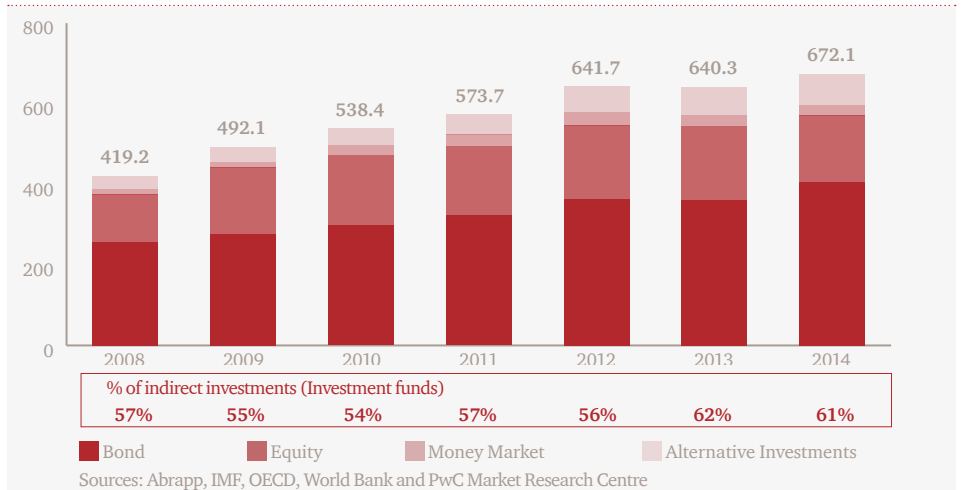
Pension assets/GDP : 12%

Size of domestic equity market

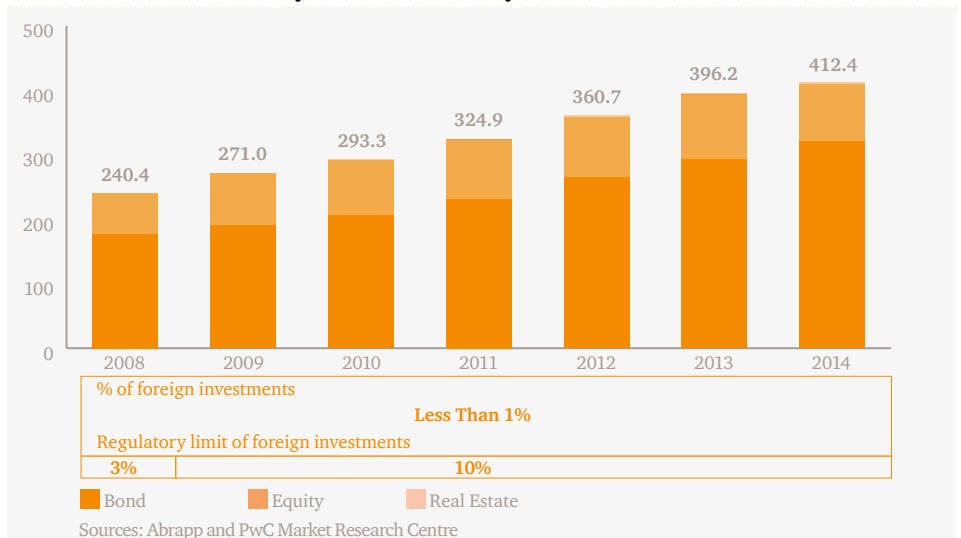
Pension allocation to equities/domestic market cap ratio: 7%



Evolution of Total Assets of Pension Funds by Asset Class (BRL bn)



Investment Funds held by Pension Funds by Asset Class (BRL bn)



Largest Pension Funds in Brazil

#	Pension fund	AuM 2014 (BRL bn)	Market share (2014)
1	Previ	168.9	25.1%
2	Petros	69.6	10.4%
3	Funcef	56.6	8.4%
4	Funcesp	23.1	3.4%
5	Fund. Itau Unibanco	20.1	3.0%
6	Valia	18.2	2.7%
7	Sistel	14.8	2.2%
8	Forluz	12.8	1.9%
9	Real Grandeza	12.3	1.8%
10	Banesprev	12.0	1.8%
	Total	408.4	60.7%

Sources: Abrapp, OECD, IMF, World Bank, PwC Market Research Centre and Global Fund Distribution Poster 2015

Sources: Abrapp and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
142%	97%	23%	30%	No limit	31%	n.a.

Overview of Canada's pension funds

Canadian pension assets, based on our estimations, were equivalent to 142% of the country's CAD 2tn GDP at year end 2014 – among the highest ratio in the world. Moreover, this ratio of pension assets to GDP continues to increase gradually. Pension assets grew at a 6-year CAGR of 8.3%, faster than GDP growth (6-year CAGR of 3.1%) between 2008 and 2014.

Total assets and asset allocation

The pension market in Canada is well developed, with one of the highest AuM at the global level (USD 2.4tn) in 2014. The market is quite fragmented as well, with the largest five pension funds holding 11% of the total pension assets.

In 2014, 97% of Canadian pensions were Defined Benefit (DB) schemes.

The asset allocation of Canadian pension funds is well diversified with 41% of total assets invested in equities, 28% in bonds and 31% in alternative investments. The share of alternative investments has increased in the recent years. For instance, the value of alternative investments in DB schemes, fuelled by an increasing allocation to hedge funds, grew from 18% in 2008 to 31% in 2014.

The assets of Canadian pension funds allocated to equities are the equivalent of 49% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, Canada does not set any quantitative limit on overall foreign investments or any specific asset classes for pension funds. They can invest 100% in foreign equities, bonds and investment funds. Currently, Canadian pension funds invest 30% of their assets abroad.

Allocation to investment funds

Canadian pension funds prefer to invest directly, apart from investments in hedge funds.

Future trends

In light of an increasing old-age dependency ratio (23% in 2014) and a high DB/DC ratio, Canadian pension funds have already taken appropriate measures to diversify their investment portfolios in terms of asset classes (31% in alternatives) and geographical exposure (30% of foreign investments). Based on past data and thanks to the absence of regulatory limits for foreign investments, we expect the relative size of total foreign investments to maintain slow but steady growth. The share of alternative investments should also remain high.

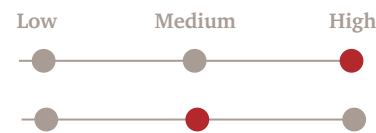
Nevertheless, regarding the use of foreign investment funds, only 35 cross-border UCITS funds were distributed in Canada as at the end of 2014 making the Canadian market quite closed.

Maturity of Pensions industry

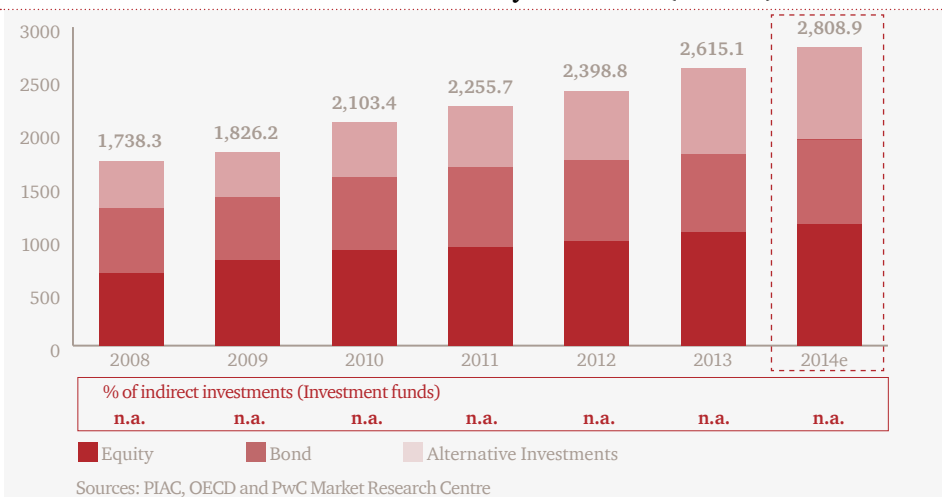
Pension assets/GDP : 142%

Size of domestic equity market

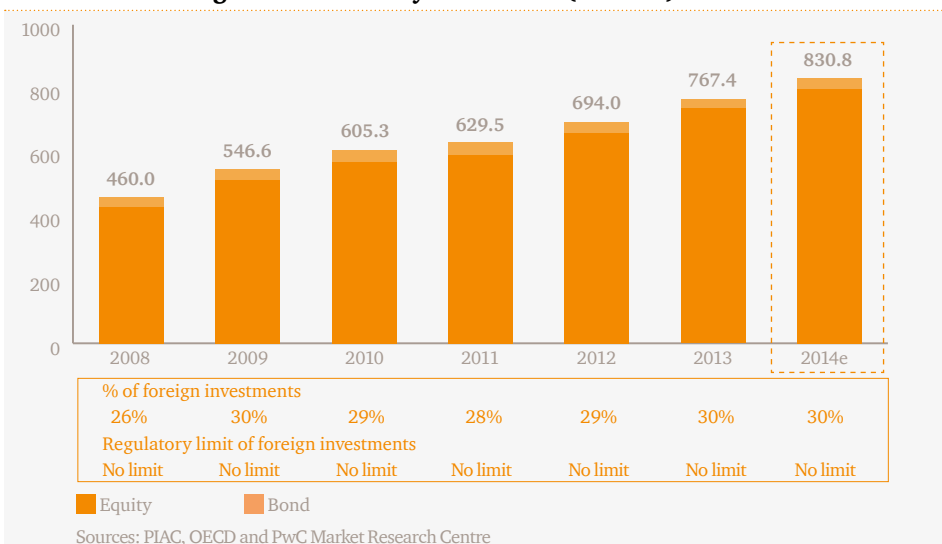
Pension allocation to equities/domestic market cap ratio: 49%



Evolution of Total Assets of Pension Funds by Asset Class (CAD bn)



Evolution of Foreign Investments by Asset Class (CAD bn)



Largest Pension Funds in Canada

#	Pension fund	AuM 2014 (CAD bn)	Market share (2014e)
1	Canadian Pension Plan Investment Board	126.1	4.5%
2	Public Sector Pension Investment Board	58.4	2.1%
3	British Columbia Pension Corporation	49.7	1.8%
4	Ontario Municipal Employees Retirement System	38.9	1.4%
5	CARRA Quebec	35.6	1.3%
Total		308.7	11.1%

Sources: IPE and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
68%	0%	15%	44%	Up to 80%	0.1%	22%

Overview of Chile's pension funds

Chilean pension assets were equivalent to 68% of the country's CLP 147.1tn GDP at year end 2014. The ratio of pension assets to GDP has been increasing rapidly in recent years as pension assets are growing faster than GDP with a 10.8% CAGR from 2009 to 2014 compared to a GDP CAGR of 8.8% in the same period.

Total assets and asset allocation

The pension market in Chile is well developed with AuM of about CLP 100.4tn (USD 165.4bn) in 2014. However, the market is fully concentrated with only six pension funds operating in the country.

In 2014, all pension schemes (100%) in Chile were Defined Contribution (DC) schemes. In 2014, the asset allocation of Chilean pension funds was not very diversified with 40.3% of total assets allocated to equities, 59.6% to bonds and only 0.1% to alternative investments. The share of alternative investments has decreased in recent years; it stood at 7.1% of total assets in December 2010.

Chilean pension fund assets allocated to equities are the equivalent of 21% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, Chile sets a limit on overall foreign investments for pension funds. If they choose to, pension funds in Chile can invest up to 80% in foreign equities, bonds and investment funds. Currently, Chilean pension funds invest a considerable part of their portfolios in foreign assets but still far from the limit permitted by the regulator: 44% of their assets are foreign investments.

Allocation to investment funds

Pension funds in Chile invest most of their assets directly and 22% through investment funds. Mutual funds are mostly used for investments abroad which account for around 45% of the total foreign investments.

Future trends

Chile is leading Latin America in terms of allocation of its pension funds to foreign investments thanks to the flexibility of its local regulator, which allows up to 80% of investments abroad. Based on past data and thanks to the large regulatory limit, we expect the relative size of total foreign investments to maintain slow but steady growth. Nevertheless, the share of alternative investments is not expected to perform a significant increase.

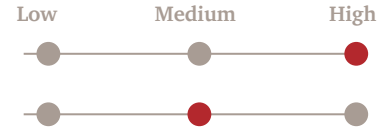
Chile is among the most promising country worldwide in terms of penetration of UCITS funds. Indeed, Chile is the most dynamic market in Latin America for the distribution of UCITS with 1,445 products registered as at December 31, 2014.

Maturity of Pensions industry

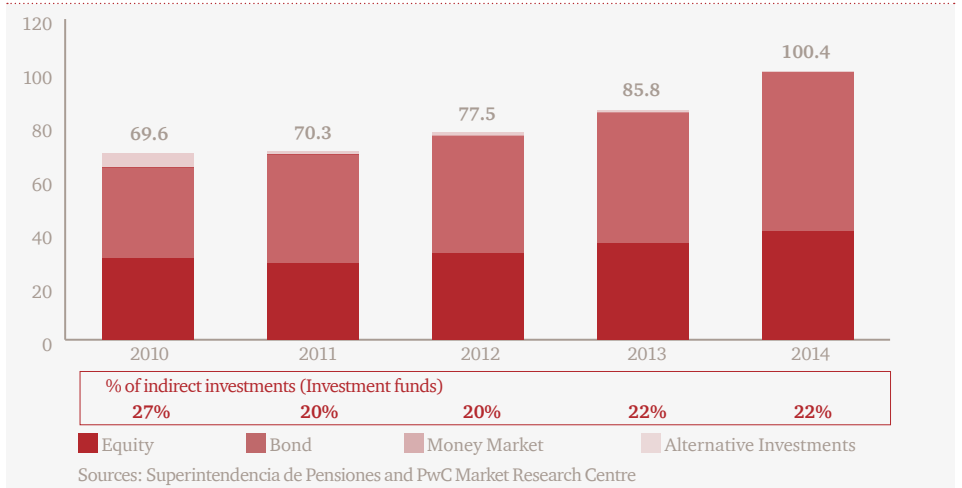
Pension assets/GDP : 68%

Size of domestic equity market

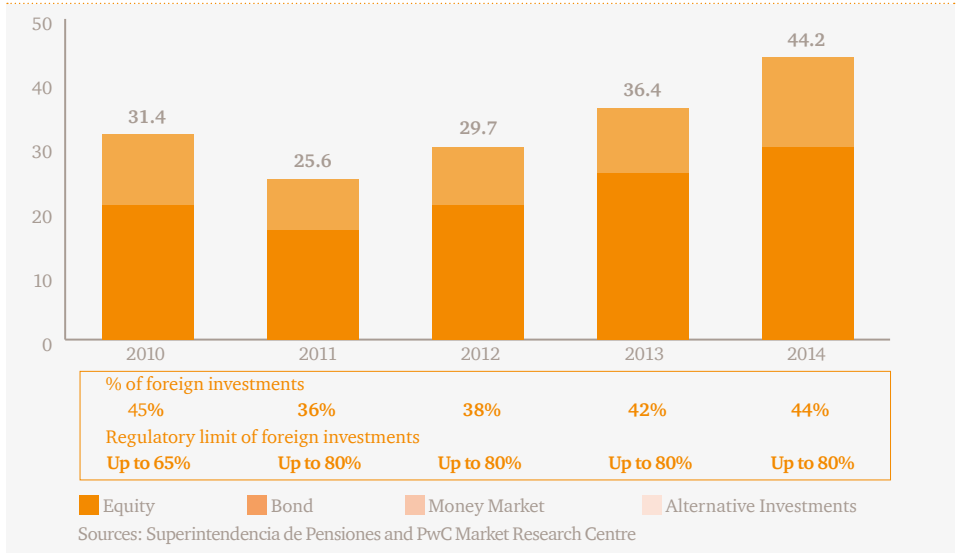
Pension allocation to equities/domestic market cap ratio: 21%



Evolution of Total Assets of Pension Funds by Asset Class (CLP tn)



Evolution of Foreign Investments by Asset Class (CLP tn)



Largest Pension Funds in Chile

#	Pension fund	AuM 2014 (CLP tn)	Market share (2014)
1	AFP Provida	28.1	28.0%
2	AFP Habitat	25.6	25.5%
3	AFP Cuprum	21.0	20.9%
4	AFP Capital	20.6	20.5%
5	PLANVITAL	3.1	3.1%
6	MODELO	2.0	2.0%
	Total	100.4	100%

Sources: Superintendencia de Pensiones and PwC Market Research Centre

Sources: Superintendencia de Pensiones, OECD, IMF, World Bank, ICI, PwC Market Research Centre and Global Fund Distribution Poster 2015



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
23%	36%	10%	23%	40% to 70%	5%	24%

Overview of Colombia's pension funds

Colombian pension assets were equivalent to 23% of the country's COP 770.2tn GDP at year end 2014. Moreover, the ratio of pension assets to GDP continues to increase rapidly as pension assets grew at a 3-year CAGR of 13.4%, much faster than GDP growth (3-year CAGR of 7.4%) between 2011 and 2014.

Total assets and asset allocation

The pension market in Colombia is very concentrated with only four pension funds accounting for about COP 176tn (USD 74.2bn) of AuM in 2014.

In 2014, Colombian pension schemes were mainly Defined Contribution (DC) schemes. The asset allocation of Colombian pension funds is fairly diversified with 42% of total assets invested in equities, 49% in bonds, 4% in money market products and 5% in alternative investments (mainly private equity and derivatives). The share of alternative investments has increased slightly in recent years, from 3% in 2011 to 5% in 2014. Looking forward, infrastructure investments are set to grow, as the finance ministry recently issued a decree allowing pension funds to invest up to 7% of their assets in infrastructure projects.

The assets of Colombian pension funds allocated to equities are the equivalent of 13% of the total market capitalisation of listed domestic companies. Despite this low ratio, 54% of Colombian equity investments are domestic.

Foreign investments

According to the OECD, Colombia sets a quantitative limit on overall foreign investments, depending on the type of pension fund*. Currently, Colombian pension funds' foreign exposure is moderate, having increased from 13% to 23% in the past four years.

Allocation to investment funds

Pension funds in Colombia invest approximately 76% of their assets directly and the remaining through investment funds. Currently, 94% of Colombian pension funds' foreign investments are made through investment funds.

Future trends

With a relatively low old-age dependency ratio (10% in 2014) and a low DB/DC ratio, Colombian pension funds have yet to diversify their investments. While they recently started that process, there is still room for improvement—current foreign allocation remains far below the permitted limit. In terms of diversification by asset class, infrastructure investments should boost the share of alternative investments within pension funds' total asset allocation in the coming years.

Regarding the use of investment funds, UCITS are widely accepted and Colombian pension funds are keen to invest in them.

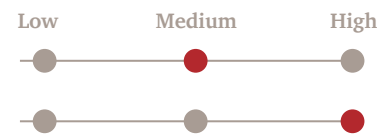
*The government requires each Pension Fund Administrator (AFP) to offer four different types of funds: Conservative fund (A), Moderate Fund (B), Great Risk Fund (C), Programmed Retirement Fund (D)

Maturity of Pensions industry

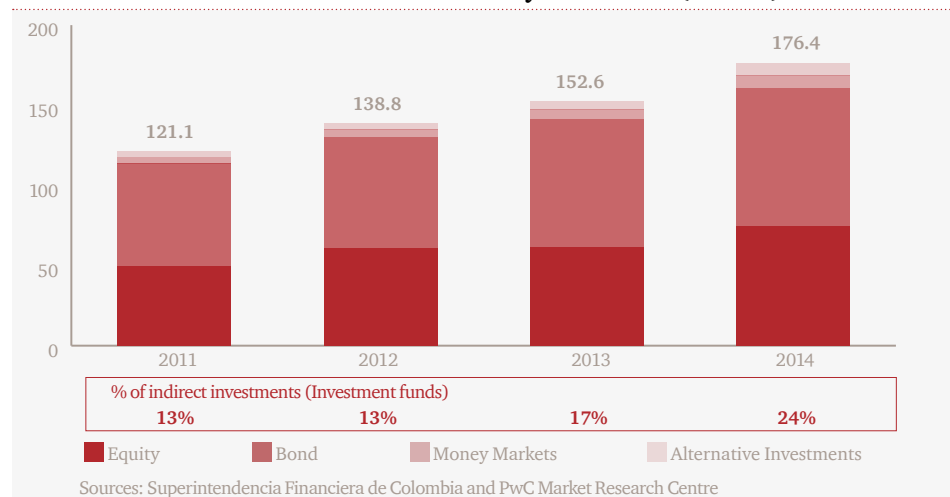
Pension assets/GDP : 23%

Size of domestic equity market

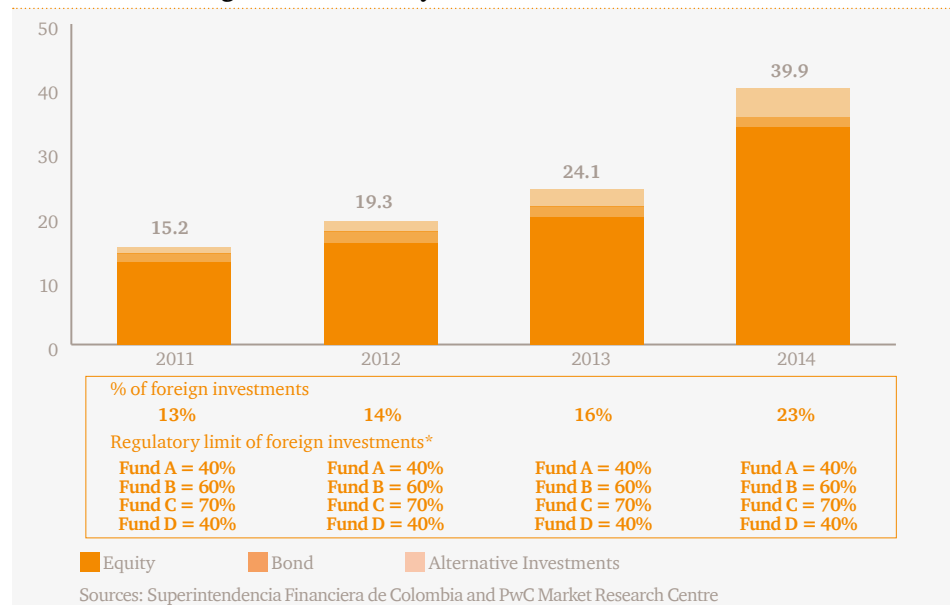
Pension allocation to equities/domestic market cap ratio: 13%



Evolution of Total Assets of Pension Funds by Asset Class (COP tn)



Evolution of Foreign Investments by Asset Class (COP tn)



Largest Pension Funds in Colombia

#	Pension fund	AuM 2014 (COP tn)	Market share (2014)
1	Porvenir	75.8	43.0%
2	Proteccion	64.3	36.4%
3	Colfondos	23.6	13.4%
4	Old Mutual	12.7	7.2%
	Total	176.4	100%

Sources: Superintendencia Financiera de Colombia and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
8%	0%	25%	12%	No limit	3%	1%

Overview of Czech pension funds

Czech pension assets were the equivalent of 8% of the country's CZK 4.3tn GDP at year end 2014. This ratio of pension assets to GDP is increasing rapidly as pension assets grow at a 6-year CAGR of 9.3%, much faster than domestic GDP growth (6-year CAGR of 1.0%).

Total assets and asset allocation

The pension market in Czech Republic is under developed with AuM of about CZK 327bn (USD 14.3bn) in 2014. The market is quite concentrated as well, with the largest five pension funds holding 74% of the total pension assets.

Defined Contribution (DC) schemes dominate the Czech pension markets; almost all pension schemes in Czech Republic are DC schemes.

The asset allocation of Czech pension funds is very conservative with about 87% of total assets invested in bonds; 11% in money market products and merely 3% in equities and alternative investments in 2014. The share of equities investments and alternatives has decreased in the recent years from 11% in 2008 to 3% in 2014.

The assets of Czech pension funds allocated to equities are equivalent to 0.1% of the total market capitalisation of listed domestic companies, which is far below the average level. This highlights the need for Czech pension funds to diversify their assets towards more aggressive asset classes.

Foreign investments

According to the OECD, Czech Republic does not set any quantitative limit on overall foreign investments or any specific asset classes within pension funds. If they choose to, pension funds in Czech Republic can invest 100% in foreign equities, bonds and investment funds. In 2014, 12% of their assets were directed to foreign investments.

Allocation to investment funds

As a result of conservative asset allocation, pension funds in Czech Republic invest only 1% of their assets through investment funds, a decrease from 3% in 2008.

Future trends

We expect the decreasing trend of foreign investments to change in the coming years. With a critically high and increasing old-age dependency ratio (25% in 2014) and a DC dominant pension structure, we expect Czech pension funds to increase diversification through equities and alternative investments, and to also increase foreign exposure.

With 659 cross-border UCITS funds distributed domestically as at end 2014, the Czech market ranks 25th worldwide in terms of penetration of foreign UCITS funds. UCITS funds will be suitable vehicles for Czech pension funds to gain exposure through equity investments.

Maturity of Pensions industry

Pension assets/GDP : 8%

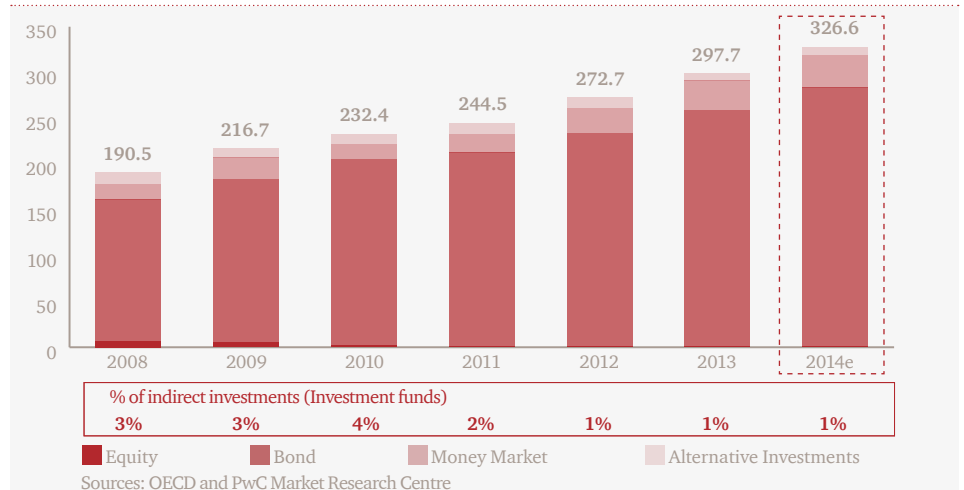


Size of domestic equity market

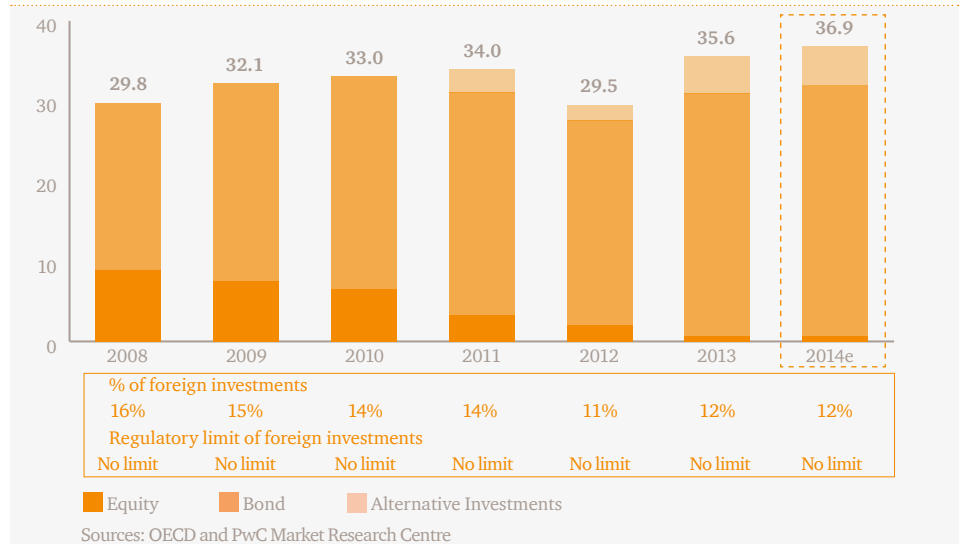
Pension allocation to equities/domestic market cap ratio: 0.1%



Evolution of Total Assets of Pension Funds by Asset Class (CZK bn)



Evolution of Foreign Investments by Asset Class (CZK bn)



Largest Pension Funds in Czech Republic

#	Pension fund	AuM 2014 (CZK bn)	Market share (2014e)
1	Penzijni fond Eeske pojistovny	81.4	24.9%
2	Czech Savings Bank	53.7	16.4%
3	Penzijni Fond Komereni Banky	39.3	12.0%
4	ESOB Penzijni fondy	35.0	10.7%
5	AXA penzijni fond	32.5	10.0%
	Total	241.9	74.1%

Sources: IPE and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
89%	7%	28%	24%	No limit for OECD countries	9%	19%

Overview of Denmark's pension funds

Danish pension assets were equivalent to 89% of the country's DKK 1.9tn GDP at year end 2014. The ratio of pension assets to GDP has been increasing during the last few years as pension assets grew much faster than GDP with a 3.4% CAGR from 2010 to 2014 compared to a 1.6% GDP growth in the same period.

Total assets and asset allocation

The pension market in Denmark is well developed with AuM of about DKK 1,701bn (USD 276.4bn) in 2014. However, the market is highly concentrated, with the largest ten pension funds holding 79.4% of total pension assets.

In 2014, 7% of Danish pension schemes were Defined Benefits (DB) schemes. The asset allocation of Danish pension funds is diversified with 34% invested in equities, 38% in bonds, 19% in funds and almost 9% in alternative investments.

The assets of Danish pension funds allocated to equities are the equivalent of 41% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, Denmark has not set limits on overall foreign investments for OECD countries. Currently, Danish pension funds allocate 24% of their assets to foreign investments.

Allocation to investment funds

Pension funds in Denmark invest most of their assets directly, with the remaining 19% allocated through investment funds.

Future trends

The Danish pension system is experiencing a low DB/DC ratio in conjunction with a critically high old-age dependency ratio (28% in 2014). For these reasons, Denmark's pension funds are expected to take a balanced investment approach. Considering the well diversified investment portfolios, we believe that the current assets allocation will not significantly change in the near future.

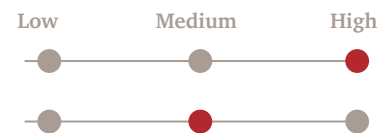
However, with 210 new registrations in 2014, the Danish market is now open to 2,142 cross-border UCITS funds.

Maturity of Pensions industry

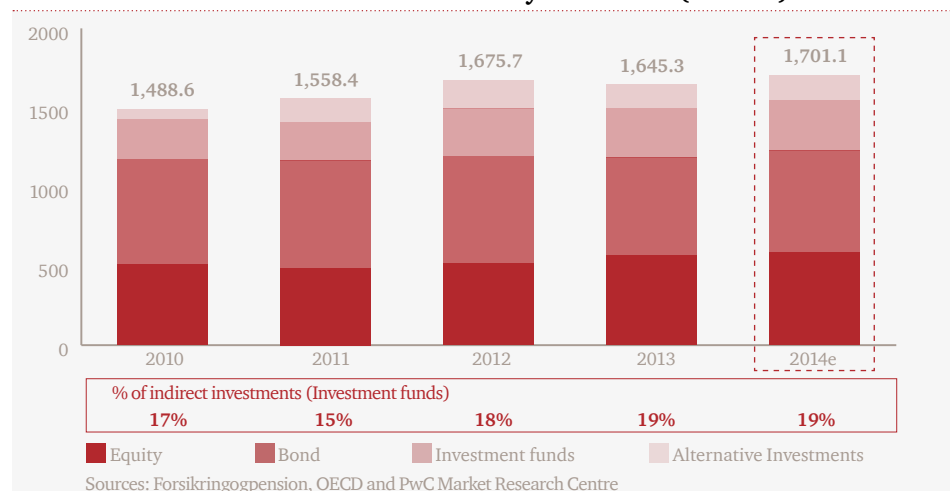
Pension assets/GDP : 89%

Size of domestic equity market

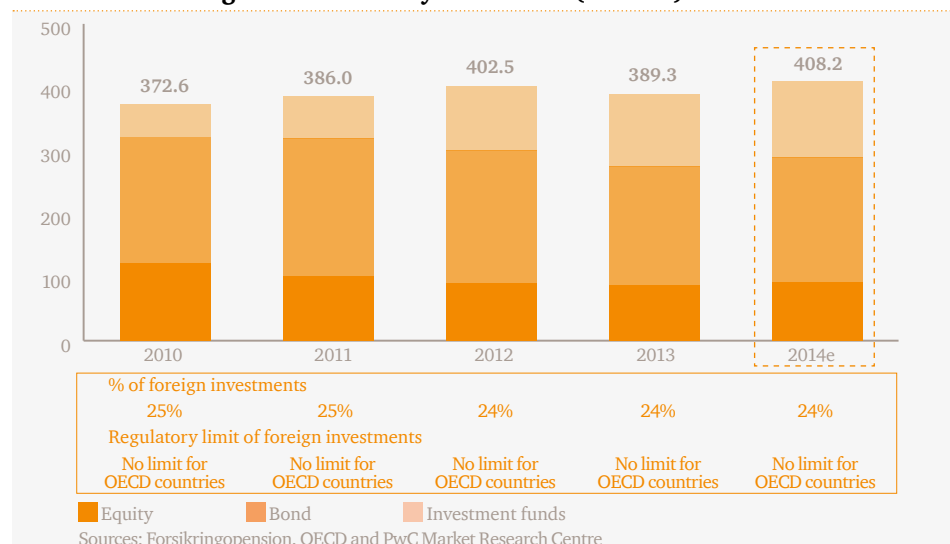
Pension allocation to equities/domestic market cap ratio: 41%



Evolution of Total Assets of Pension Funds by Asset Class (DKK bn)



Evolution of Foreign Investments by Asset Class (DKK bn)



Largest Pension Funds in Denmark

#	Pension fund	AuM 2014 (DKK bn)	Market share
1	PFA Pension	306.0	18.6%
2	Danica Pension	220.2	13.4%
3	Sampension	148.8	9.0%
4	Nordea Liv A/S	126.6	7.7%
5	PensionDanmark	115.9	7.0%
6	Industriens Pensionsforsikring A/S	97.9	6.0%
7	PenSam	84.2	5.1%
8	SEB	74.9	4.5%
9	AP Pension	68.7	4.2%
10	MP Pension	64.8	3.9%
	Total	1,308.0	79.4%

Sources: OECD, IMF, World Bank, ICI, PwC Market Research Centre and Global Fund Distribution Poster 2015

Sources: IPE and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
85%	100%	31%	74%	10-20% non-OECD	13%	26%

Overview of Finland's pension funds

Finnish pension assets were equivalent to 85% of the country's EUR 204bn GDP at year end 2014. Moreover, this ratio of pension assets to GDP is still increasing rapidly as pension assets grew at a 6-year CAGR of 8.6%, much faster than GDP growth (6-year CAGR of 0.9%) between 2008 and 2014.

Total assets and asset allocation

The pension market in Finland is well developed with AuM of about EUR 173bn (USD 208.7bn) in 2014. The ten largest pension funds account for almost 88% of total pension assets, with Varma Mutual Pension Insurance Co. having the largest share.

In 2014, all Finnish pension schemes were Defined Benefits (DB) schemes. The asset allocation of Finnish pension funds is well diversified with 49% invested in equities, 34% in bonds, 4% in money market products and 13% in alternative investments (mainly real estate and loans).

The allocation to equity increased from 33% in 2008 to 49% in 2014, showing a strong trend of Finnish pension funds to invest in equity.

The assets of Finnish pension funds allocated to equities are the equivalent of 53% of the total market capitalisation of listed domestic companies.

Foreign investments

Currently, Finnish pension funds invest heavily in foreign assets: 74% of their assets are directed to foreign investments, mainly equity (54% of foreign investments). However, Finland sets quantitative limits on overall foreign investments. Voluntary and statutory pension plans are allowed to invest only 10% and 20% respectively of their total assets in non-OECD countries.

Allocation to investment funds

In 2014, pension funds in Finland invested approximately 26% of their assets through investment funds. This figure has increased from 12% in 2008. Statutory pension plans are allowed to invest only 28% in non-OECD countries.

Future trends

In light of a critically high and increasing old-age dependency ratio (31% in 2014) and only DB schemes, Finnish pension funds have already taken appropriate measures to diversify their investment portfolios in terms of assets class (13% in alternatives) and geographical exposure (74% of foreign investments). We expect this trend to continue, but it may be hindered by local regulations (maximum investments from 10% to 20% in non-OECD countries).

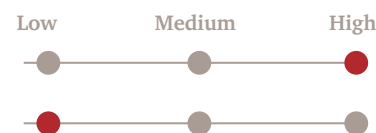
Regarding the use of investment funds, with 3,358 cross-border UCITS funds distributed in Finland as at the end of 2014 and 331 new registrations during 2014, the Finnish market is quite open to foreign investment funds.

Maturity of Pensions industry

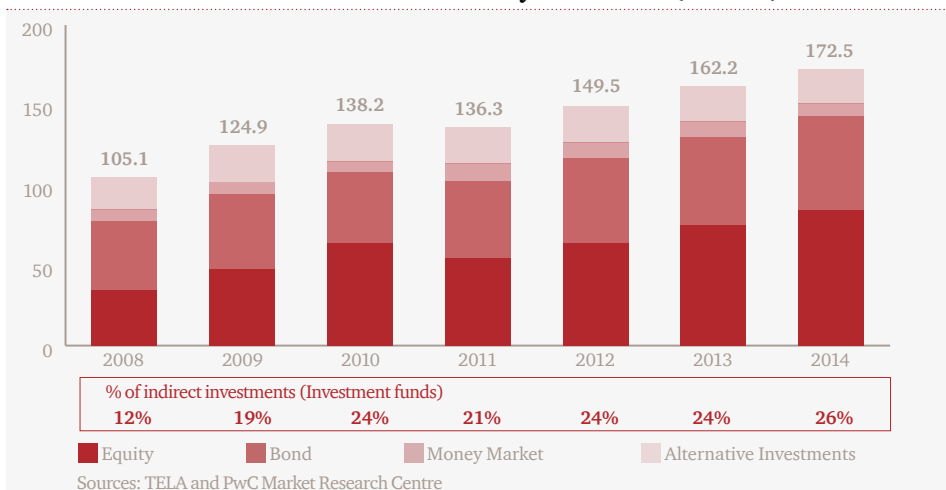
Pension assets/GDP : 85%

Size of domestic equity market

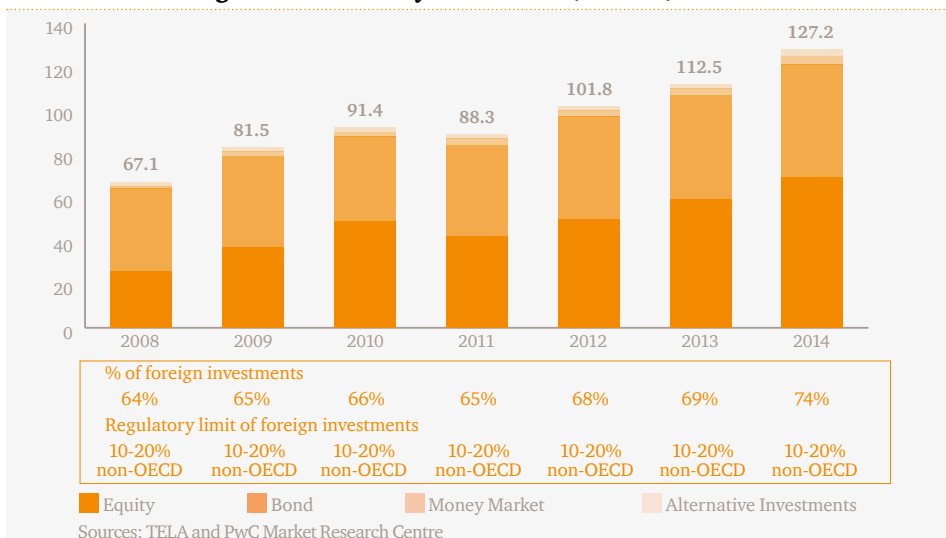
Pension allocation to equities/domestic market cap ratio: 53%



Evolution of Total Assets of Pension Funds by Asset Class (EUR bn)



Evolution of Foreign Investments by Asset Class (EUR bn)



Largest Pension Funds in Finland

#	Pension fund	AuM 2014 (EUR bn)	Market share (2014)
1	Varma Mutual Pension Insurance Co.	37.6	21.8%
2	Keva	37.1	21.5%
3	Keskinäinen Eläkevakuutusyhtiö Ilmarinen	28.3	16.4%
4	Elo Mutual Pension Insurance	17.8	10.3%
5	Valtion Eläkerahasto (VER)	16.6	9.6%
6	Etera Mutual Pension	5.7	3.3%
7	Veritas Pensionforsäkring	2.5	1.5%
8	Kela- Social Insurance Institution	2.5	1.5%
9	OP-Pohjola Group	1.5	0.8%
10	Nokia Corporation	1.3	0.7%
	Total	150.9	87.4%



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
6%	100%	32%	12%	No limit	40%	41%

Overview of Germany's pension funds

Germany's pension assets, based on 2014 estimates, were equivalent to only 6% of the country's EUR 2.9tn GDP at year end 2014. This ratio of pension assets to GDP has been increasing; between 2008 and 2014, pension assets grew at a 6-year CAGR of 7.8%, much faster than domestic GDP (6-year CAGR of 2.1%).

Total assets and asset allocation

The pension market in Germany is underdeveloped with AuM of about EUR 184.7bn (USD 223.5bn) in 2014. In the past, individuals relied predominantly on statutory pension insurance. With mounting demographic challenges, this model is beginning to change and private pension funds are becoming more common.

All German pension funds are Defined Benefit (DB) schemes. The asset allocation of German pension funds is rather conservative, with 52% invested in bonds, 4% in equities, 4% in money market products and 40% in alternative investments (mainly loans). The government is set to introduce new rules for private equity and real estate funds with the aim of promoting alternative investments.

The assets of German pension funds allocated to equities are the equivalent of only 0.5% of the total market capitalisation of listed domestic companies. However, low interest rates are forcing German pension funds to consider less conservative investments, in particular equities, both domestic and foreign.

Foreign investments

According to the OECD, Germany does not set any detailed quantitative limit on overall foreign investments or specific asset classes for pension funds. However, foreign investments of pension funds have to be kept at prudential level. German pension funds have steadily increased their allocation to foreign assets from 8% in 2011 to 12% in 2014.

Allocation to investment funds

Pension funds in Germany invest approximately 59% of their assets directly and the remaining through investment funds. Local authorities allow pension funds to invest in UCITS and are discussing a legal amendment which will permit them to invest in the so-called "Spezialfonds".

Future trends

In light of a critical and increasing old-age dependency ratio (32% in 2014) and a 100% DB/DC ratio, German pension funds have started to take appropriate measures to diversify their investment portfolios in terms of assets class and geographical exposure. Looking forward, the alternative pocket is likely to be much more diversified thanks to private equity and real estate investments. Exposure to foreign investments may increase, especially on the equity side.

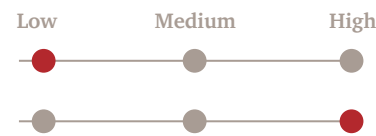
Germany appears to be a promising market for foreign investment funds. With already 41% of pension funds' assets invested in investment funds, Germany is the most important market worldwide in terms of penetration of UCITS (7,867 registrations as at the end of 2014.)

Maturity of Pensions industry

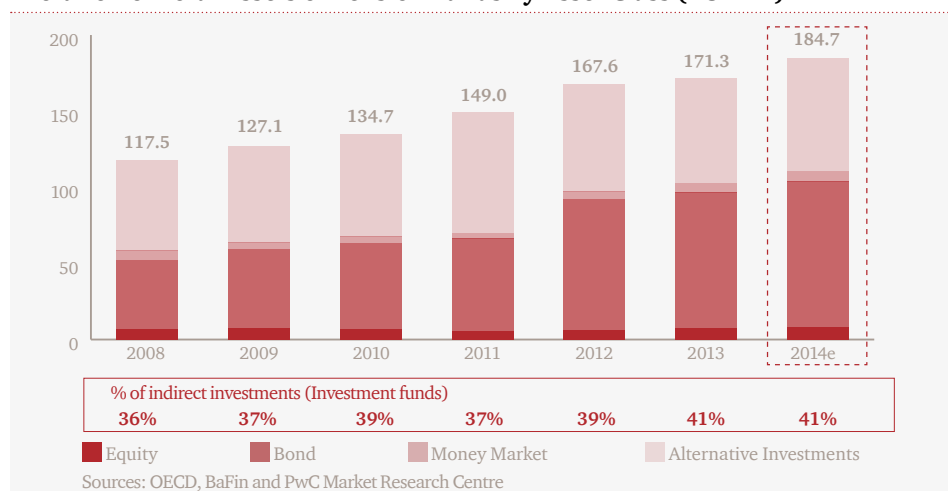
Pension assets/GDP : 6%

Size of domestic equity market

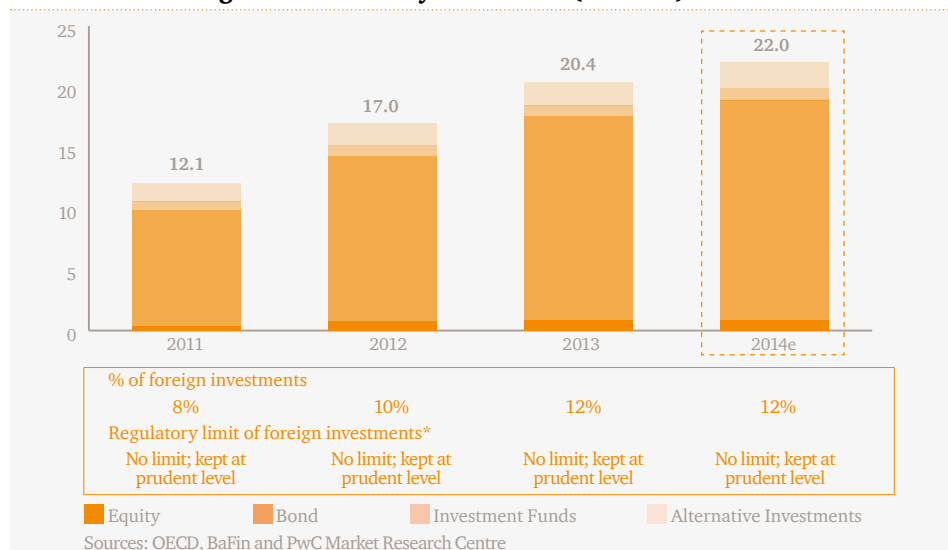
Pension allocation to equities/domestic market cap ratio: 0.5%



Evolution of Total Assets of Pension Funds by Asset Class (EUR bn)



Evolution of Foreign Investments by Asset Class (EUR bn)



Largest Pension Funds in Germany

#	Pension fund	AuM 2013 (EUR bn)	Market share (2013)
1	BVV	24.7	14.4%
2	Bayer Pensionskasse	8.2	4.8%
3	Allianz PK AG	8.0	4.7%
4	RWE Pensionsfonds	6.8	4.0%
5	Hoechst-Gruppe PK	6.8	4.0%
6	Siemens Pensionsfonds	5.7	3.3%
7	IBM Deutschland	5.1	3.0%
8	Hamburger PK 1905	4.6	2.7%
9	ZVK Bau AG	4.2	2.5%
10	Allianz VK	4.2	2.5%
	Total	78.3	45.9%

Sources: OECD, IMF, World Bank, BaFin, IPE, PensionFundsOnline.co.uk (2015), PwC Market Research Centre and Global Fund Distribution Poster 2015

Sources: BaFin and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
35%	12%	20%	39%	30% in HKD assets	n.a.	n.a.

Overview of Hong Kong's pension funds

Hong Kong pension assets accounted for 35% of the region's HKD 2.2tn GDP at year end 2014. This ratio of pension assets to GDP is increasing rapidly as pension assets grew at a 6-year CAGR of 10.6% from 2008 to 2014, much faster than GDP growth (6-year CAGR of 4.7%).

Total assets and asset allocation

The pension market in Hong Kong is fairly developed with AuM of about HKD 858.7bn (USD 110.7 bn) in 2014.

Employees and self-employed people in Hong Kong are required to join a Mandatory Provident Fund (MPF) scheme or Occupational Retirement Schemes under the Occupational Retirement Schemes Ordinance (ORSO). Under the MPF System, each trustee offers one or more MPF schemes, and each scheme has different constituent funds for scheme members to choose from. The assets under the MPF system increased from HKD 259.7bn to HKD 565.1bn (6-year CAGR of 18%), much faster than those in the ORSO schemes (6-year CAGR of 2%).

The MPF market is fairly concentrated with top five trustees accounting for 66% of the total market.

In 2014, Hong Kong pension funds allocated 67% of their assets to equities. This is equivalent to 3% of the total market capitalisation of listed domestic companies, which is far below the average level. Despite the large capacity of the local stock market, MPF sends 43% of its equity investments abroad.

Foreign investments

According to the Mandatory Provident Fund Schemes Authority (MPFA), an MPF must invest at least 30% of its assets in Hong Kong dollar currency investments. Pension funds in Hong Kong can invest in securities listed in the stock exchange approved by the Hong Kong regulator. Currently, 39% of their assets are directed to foreign investments.

Allocation to investment funds

MPF and ORSO schemes can invest in the investment funds authorised by the Securities and Futures Commission (SFC). As of Q1 2015, the schemes are permitted to invest in 304 Pooled Investment Funds, 124 Index-tracking Collective Investment Schemes, and a number of UCITS index ETFs.

Future trends

With a relatively high and increasing old-age dependency ratio (20% in 2014) and a DC dominant pension structure, Hong Kong pension funds will likely diversify their portfolios geographically.

With 1,194 cross-border UCITS funds distributed in Hong Kong as at end 2014, the Hong Kong market ranks second in Asia Pacific after Singapore in terms of penetration of foreign UCITS funds. We expect more UCITS funds will be used by Hong Kong pension funds in the near future.

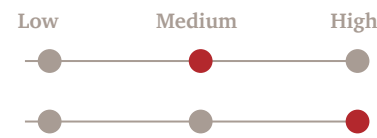
Sources: OECD, IMF, World Bank, ICI, PwC Market Research Centre and Global Fund Distribution Poster 2015

Maturity of Pensions industry

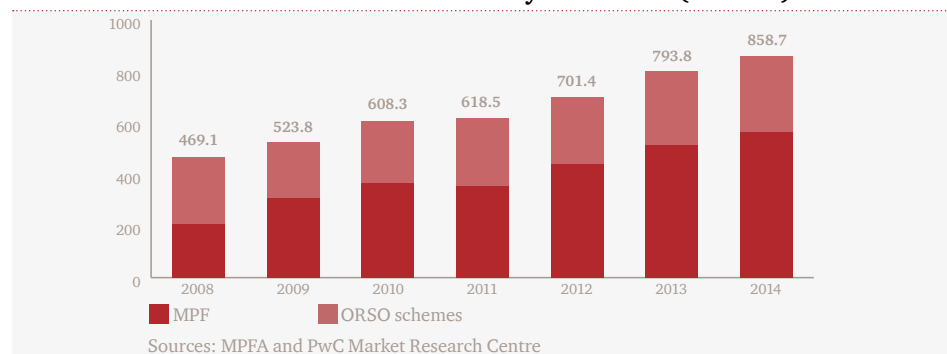
Pension assets/GDP : 35%

Size of domestic equity market

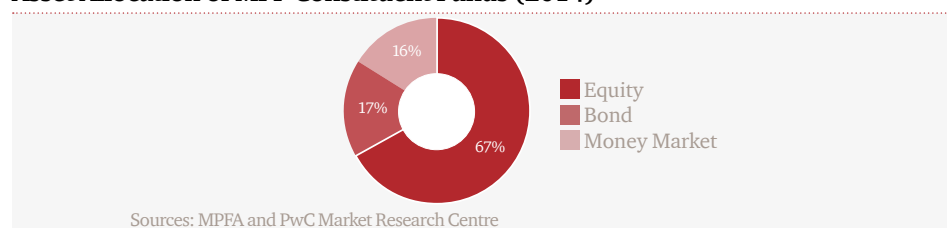
Pension allocation to equities/domestic market cap ratio: 3%



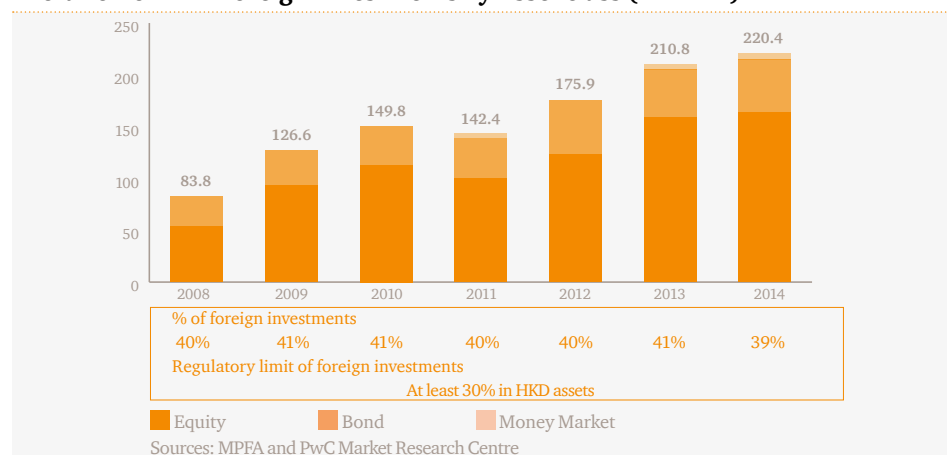
Evolution of Total Assets of Pension Funds by Asset Class (HKD bn)



Asset Allocation of MPF Constituent Funds (2014)



Evolution of MPF Foreign Investments by Asset class (HKD bn)



Top MPF Approved Trustees in Hong Kong

#	Pension trustees	AuM Q1 2015 (HKD bn)
1	HSBC Investment Funds (HK) Ltd	137.3
2	Manulife Asset Mgmt (HK) Ltd	97.8
3	AIA MPF Services	50.7
4	BOCI Prudential Asset Mgmt MPF	45.9
5	Hang Seng Investment Mgmt Ltd	41.8
6	Bank Consortium Trust Co Ltd	35.8
7	Fidelity (FIL Inv Mgt HK Ltd)	28.8
8	Sun Life Hong Kong Limited	28.0
9	Bk of East Asia (Trustees) Ltd	18.5
10	Principal Asst Mgt Co(Asia)Ltd	18.3

Source: Trustnet



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
8%	7%	33%	53%	No limit for OECD countries	32%	10%

Overview of Italy's pension funds

Italian pension assets were equivalent to 8% of the country's EUR 1.6tn GDP at year end 2014. The ratio of pension assets to GDP has been increasing during the last few years as pension assets grew much faster than GDP with a 12% CAGR from 2010 to 2014 compared to a 0.2% GDP growth in the same period.

Total assets and asset allocation

The pension market in Italy is not well developed with AuM of about EUR 131bn (USD 178.6bn) in 2014. Moreover, the market is highly concentrated, with the largest ten pension funds holding 69.4% of total pension assets.

In 2014, 7% of Italian pension schemes were Defined Benefits (DB) schemes. After several reforms all pension funds now operate on a defined contribution (DC) basis, as this is the only permitted type of pension plan. Defined benefit (DB) plans are restricted to pre-existing funds.

The asset allocation of Italian pension funds is diversified with 13% invested in equities, 51% in bonds, 4% in money market products and almost 32% in alternative investments (mainly real estate). The share of alternative investments has decreased from 36% in 2010.

The assets of Italian pension funds allocated to equities are the equivalent of 5% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, Italy has not set limits on overall foreign investments for OECD countries. Some restrictions were introduced with regards to securities (debts and equities) issued by non-OECD countries: 5% limit if traded on regulated markets; no trades on unregulated markets. Currently, Italian pension funds allocate 53% of their assets to foreign investments.

Allocation to investment funds

Pension funds in Italy invest most of their assets directly, with the remaining 10% allocated through investment funds.

Future trends

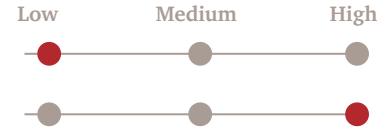
With 521 new registrations in 2014, the Italian market is now open to 4,753 cross-border UCITS funds. However, the Italian pension system is experiencing a gradual structural change with an increasing participation of the private sector in order to meet the long term liabilities of the entire system. The critical and increasing old-age dependency ratio (33% in 2014) together with a low DB/DC ratio should lead Italian Pension funds to take a balanced investment approach. As a consequence, increased exposure to equity investments may be expected in order to further diversify the portfolios.

Maturity of Pensions industry

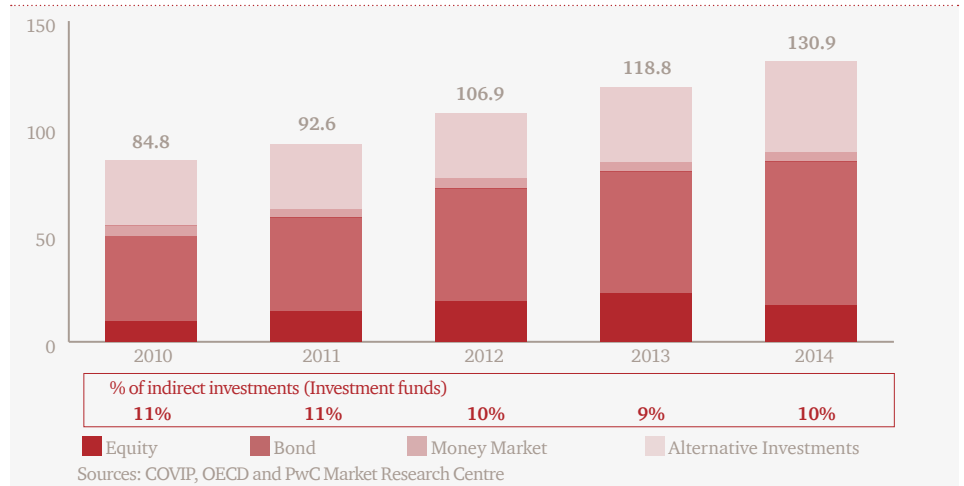
Pension assets/GDP : 8%

Size of domestic equity market

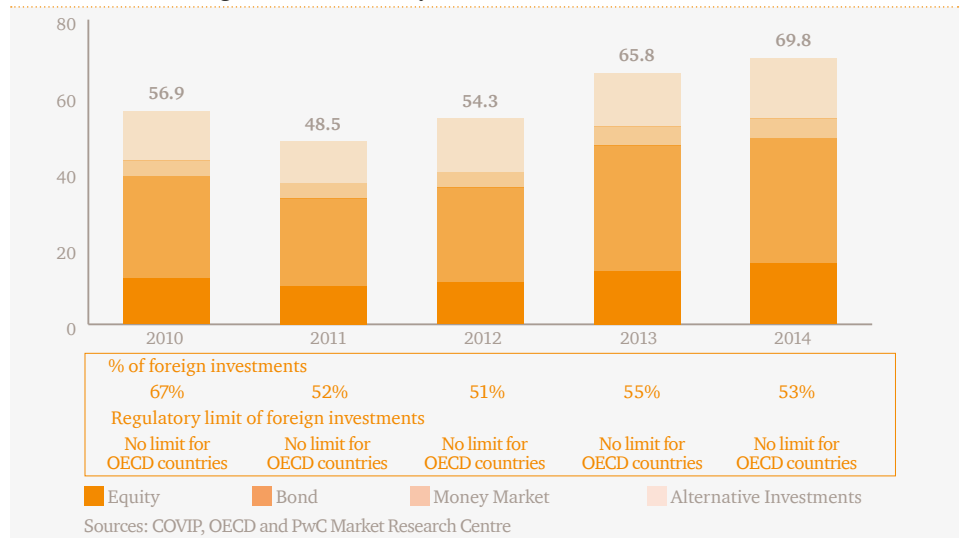
Pension allocation to equities/domestic market cap ratio: 5%



Evolution of Total Assets of Pension Funds by Asset Class (EUR bn)



Evolution of Foreign Investments by Asset Class (EUR bn)



Largest Pension Funds in Italy

#	Pension fund	AuM 2014 (EUR bn)	Market share
1	INPS	21.6	16.5%
2	Fondazione ENPAM	15.2	11.6%
3	Fondo pensione COMETA	8.3	6.3%
4	Previndai - Fondo pensione	7.9	6.0%
5	INARCASSA	7.5	5.7%
6	Fondazione Enasarco	6.9	5.3%
7	Cassa di Previdenza e Assistenza Forense	6.8	5.2%
8	Unicredit S.p.a.	6.4	4.9%
9	CNPADC	5.8	4.4%
10	FONCHIM	4.4	3.4%
	Total	90.8	69.4%



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
37%	97%	42%	32%	No limit	n.a.	n.a.

Overview of Japan's pension funds

Japanese pension assets, based on our estimations, were equivalent to 37% of the country's JPY 488tn GDP at year end 2014. Moreover, this ratio of pension assets to GDP continues to increase gradually. Pension assets grew at a 6-year CAGR of 4.1%, faster than GDP growth (6-year CAGR of -0.4%), between 2008 and 2014.

Total assets and asset allocation

Japan has one of the largest pension markets in the world with assets amounting to JPY 182.4tn (USD 1.5tn) at year end 2014. The pension market in Japan is quite concentrated with the largest three pension funds, including the largest pension fund in the world, Government Pension Investment Fund (GPIF), accounting for more than 92% of the markets.

In 2014, 97% of Japanese pensions were Defined Benefit (DB) schemes.

The asset allocation of Japanese pension funds is less diversified with 66% of their assets in bonds, most of which are government bonds. However in recent years, Japanese pension funds have shown a clear trend from bonds to equities. The share of equities increased from 17% in 2008 to 32% in 2014.

The assets of Japanese pension funds allocated to equities are the equivalent of 13% of the total market capitalisation of listed domestic companies. This implies there is still enough space for the bond-to-equity-shift trend.

Foreign investments

According to the OECD, Japan does not set any quantitative limit on overall foreign investments or any specific asset classes at the country level. However, at the fund level, each pension fund can set up its own target allocation ratio for each asset classes (e.g. domestic bonds, domestic equities, foreign bonds and foreign equities).

Allocation to investment funds

Pension funds in Japan prefer to give mandates to the external asset manager. For example, GPIF hired three transition managers to help it shift the money from domestic bonds into stocks and foreign investments.

Future trends

In light of one of the highest and increasing old-age dependency ratios (42% in 2014) and a high DB/DC ratio, Japanese pension funds have already taken appropriate measures to diversify their investment portfolios in terms of asset classes (32% in equities) and geographical exposure (32% of foreign investments). Based on past data and the change of target pension allocation ratios, we expect the relative size of total foreign investments to continue growing.

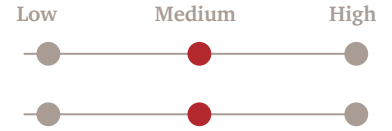
Nevertheless, regarding the use of foreign investment funds, only 93 cross-border UCITS funds were distributed in Japan as at the end of 2014, making the Japanese market quite closed.

Maturity of Pensions industry

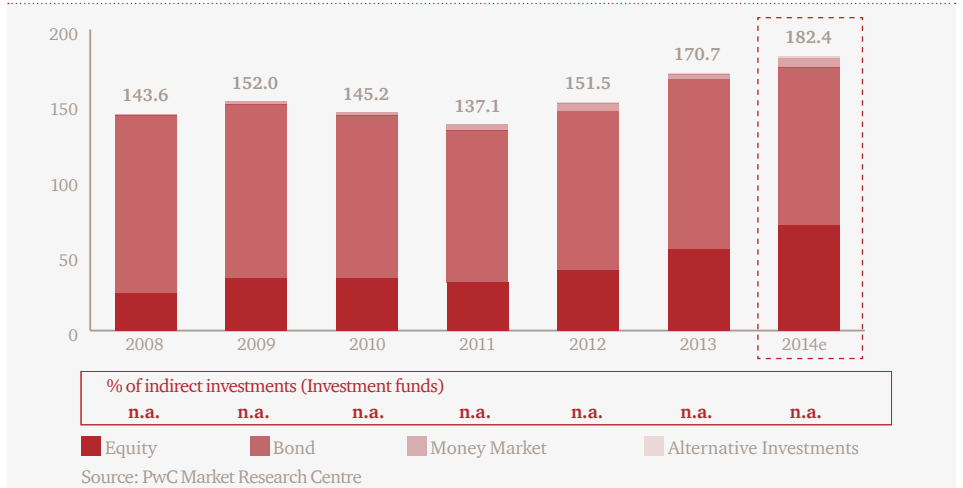
Pension assets/GDP : 38%

Size of domestic equity market

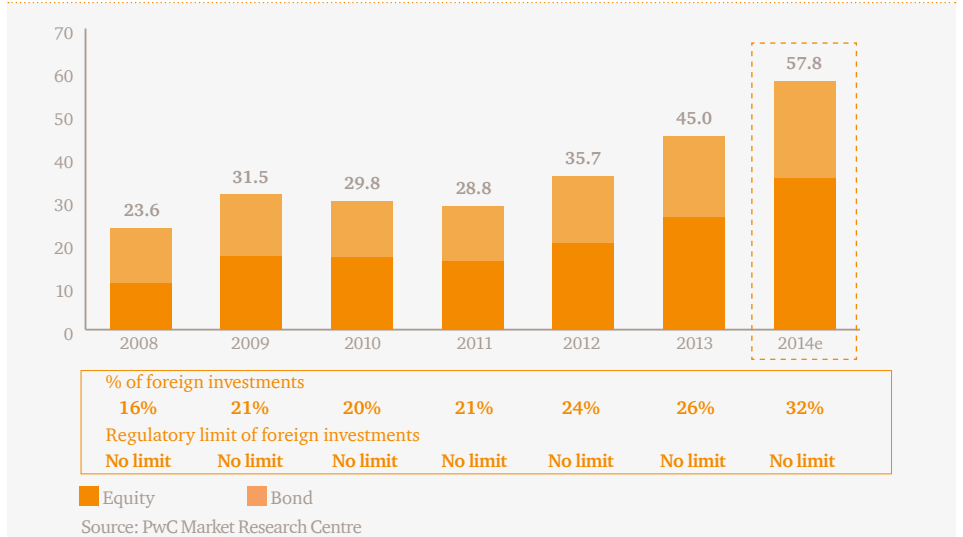
Pension allocation to equities/domestic market cap ratio: 13%



Evolution of Total Assets of Pension Funds by Asset Class (JPY tn)



Evolution of Foreign Investments by Asset Class (JPY tn)



Largest Pension Funds in Japan

#	Pension fund	AuM 2014 (JPY tn)	Market share (2014e)
1	Government Pension Investment Fund	137.0	75.1%
2	Pension Fund Association for Local Government Officials	21.1	11.6%
3	Pension Fund Association	12.5	6.9%
	Total	170.6	92.6%

Source: PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
3%	80%	21%	n.a.	No limit	10%	44%

Overview of Luxembourg's pension funds

Luxembourgish pension assets were equivalent to 3% of the country's EUR 47bn GDP at year end 2014. The ratio of pension assets to GDP has been increasing gradually from 2010 to 2014 as pension assets have been growing at a 4-year CAGR of 19.3%, faster than domestic GDP (4-year CAGR of 4.5%).

Total assets and asset allocation

The pension market in Luxembourg is not well developed, with AuM of about EUR 1.4bn (USD 1.7bn) in 2014.

That year, 80% of Luxembourgish pensions were Defined Benefits (DB) schemes.

The asset allocation of Luxembourgish pension funds is not well diversified; 23% of assets are invested in equity, 67% in bonds and 10% in alternative investments. Whereas the share of equity investments saw an increase from 15% in 2010 to 23% in 2014, alternative investments decreased during that period.

The assets of Luxembourgish pension funds allocated to equities are equivalent to only 0.14% of the total market capitalisation of listed domestic companies.

Foreign investments

Although data about foreign investments of Luxembourg's pension funds are not readily available from the regulator (CSSF), Luxembourgish pension funds do invest in foreign assets.

Allocation to investment funds

Luxembourgish pension funds have increased their investments through investment funds in the past four years. The ratio of investments through investment funds (UCIs) to total pension assets was 24% in 2010 and grew to 44% in 2014.

For the period 2010 to 2014, the investment fund assets in total pension assets grew by 39.5% (CAGR), while the growth of overall pension fund assets was 19.3% (CAGR).

In one year (2013–2014), pension investments in investment funds increased more than 100%, from EUR 301 mn to EUR 609 mn. In 2014, Equity UCIs accounted for 56% of total investments via investment funds.

Future trends

Due to an increasing old-age dependency ratio (21% in 2014), and a high DB/DC ratio, Luxembourgish pension funds are expected to maintain their investments in bonds while increasing diversity through higher return assets and various geographic regions to meet their growing pension liabilities.

Luxembourg is by far the number one domicile for cross-border UCITS funds in the world with a 67% market share.

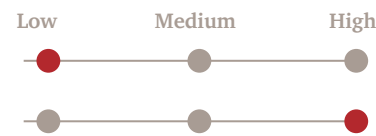
Funds domiciled in Luxembourg are not only sold in Europe, but also in Asian, South-American and Middle Eastern countries.

Maturity of Pensions industry

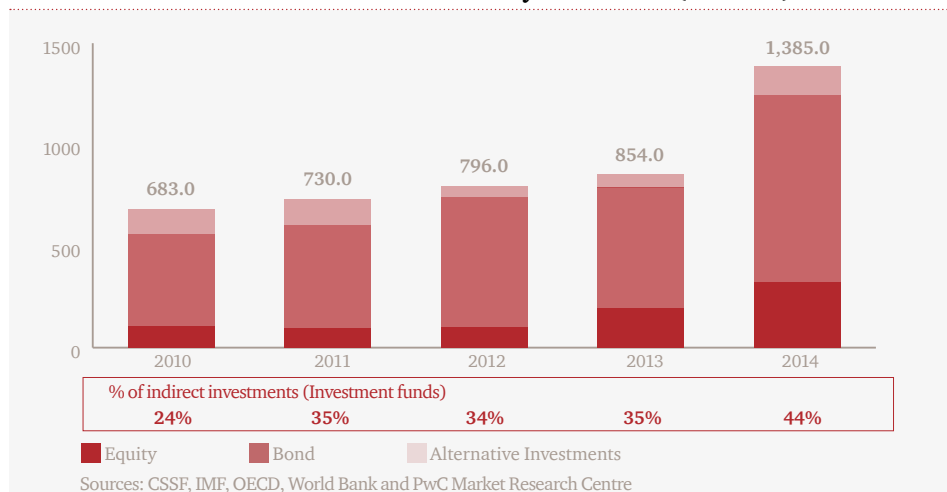
Pension assets/GDP : 3%

Size of domestic equity market

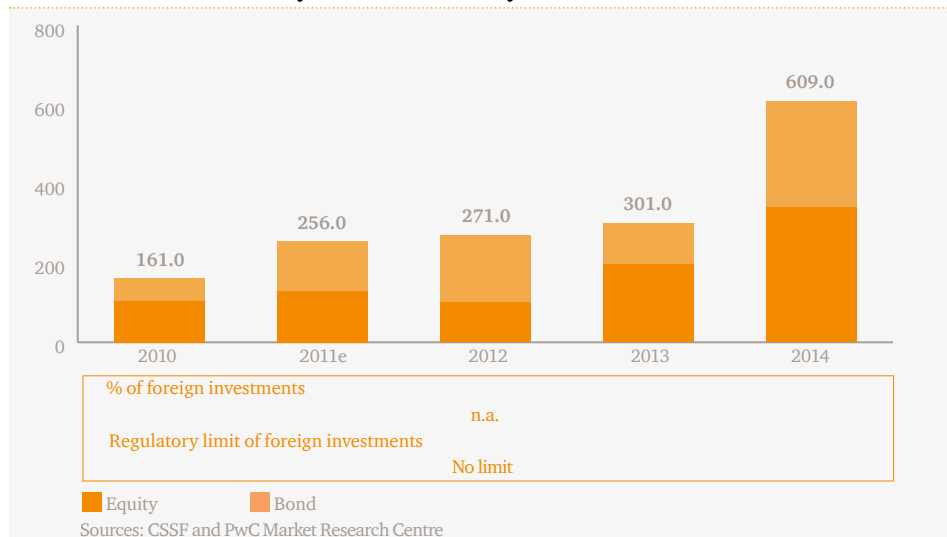
Pension allocation to equities/domestic market cap ratio: 0.14%



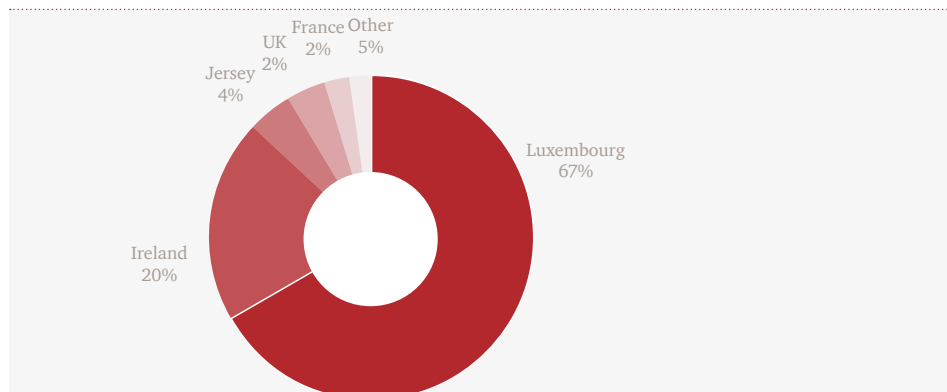
Evolution of Total Assets of Pension Funds by Asset Class (EUR mn)



Investment Funds held by Pension Funds by Asset Class (EUR mn)



Domicile share of authorisations for cross-border distribution



Sources: CSSF, OECD, IMF, World Bank and PwC Market Research Centre

Note: Cross-border funds are defined as UCITS registered in at least three countries (including home country)
Sources: Lipper, CSSF and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
17%	13%	10%	12%	20%	0.3%	4%

Overview of Mexico's pension funds

Mexican pension assets, based on 2014 estimates, were equivalent to 17% of the country's MXN 17.1tn GDP at year end 2014. Moreover, this ratio of pension assets to GDP has increased rapidly as pension assets grew at a 6-year CAGR of 13.6% between 2008 and 2014, much faster than GDP growth (6-year CAGR of 5.7%).

Total assets and asset allocation

The pension market in Mexico is not well developed with AuM of about MXN 2.9tn (USD 197.0bn) in 2014. Moreover, the market is highly concentrated, with the largest four pension funds holding more than 50% of total pension assets.

In 2014, Mexican pension schemes were mainly Defined Contribution (DC) schemes. The asset allocation of Mexican pension funds is very conservative with 75% of total assets invested in bonds and 24% in equities. Despite a 20% investment restriction applied to alternatives, less than 1% is allocated both to this asset class and to money market products. This is partly due to a lack of flexibility in the domestic legal framework.

Whereas the share of total investments allocated to bonds decreased from 82% in 2008 to 75% in 2014, the share of equity investments increased from 11% in 2008 to 24% in 2014.

The assets of Mexican pension funds allocated to equities are the equivalent of 6% of the total market capitalisation of listed domestic companies. In line with the overall growing equity investment trend, foreign equity investments has increased substantially from 2008 to 2014.

Foreign investments

According to the OECD, Mexican pension funds are not allowed to invest more than 20% of their portfolios in foreign assets. Nevertheless, since 2008, Mexican pension funds have been increasing the portion of foreign assets from 6% in 2008 to 12% in 2014. As of 2014, 87% of foreign assets were invested in equities.

Allocation to investment funds

Pension funds in Mexico invest approximately 96% of their assets directly and only 4% through investment funds. This figure has remained steady from 2008 to 2014.

Future trends

Despite a low old-age dependency ratio (10% in 2014) and a low DB/DC ratio, Mexican pension funds have already started their geographical diversification. We expect the exposure to foreign investments to increase as there is still room to reach the 20% regulatory limit. Mexican pension funds also have the opportunity to rely on alternatives in order to further diversify their portfolios.

However, their use of investment funds may remain limited, due to the low penetration of foreign funds: only seven cross-border UCITS funds were distributed in Mexico as at the end of 2014.

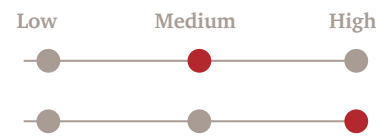
Sources: OECD, IMF, World Bank, worldfinance.com (2014), PwC Market Research Centre and Global Fund Distribution Poster 2015

Maturity of Pensions industry

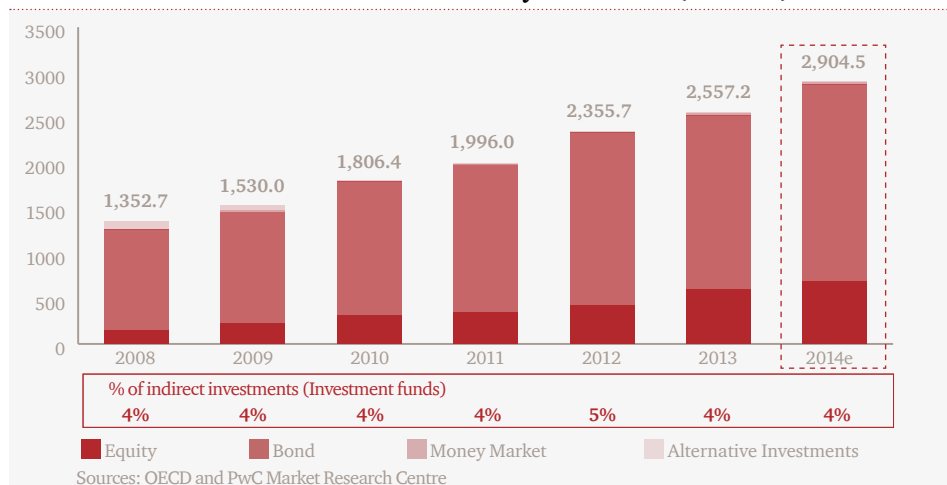
Pension assets/GDP : 17%

Size of domestic equity market

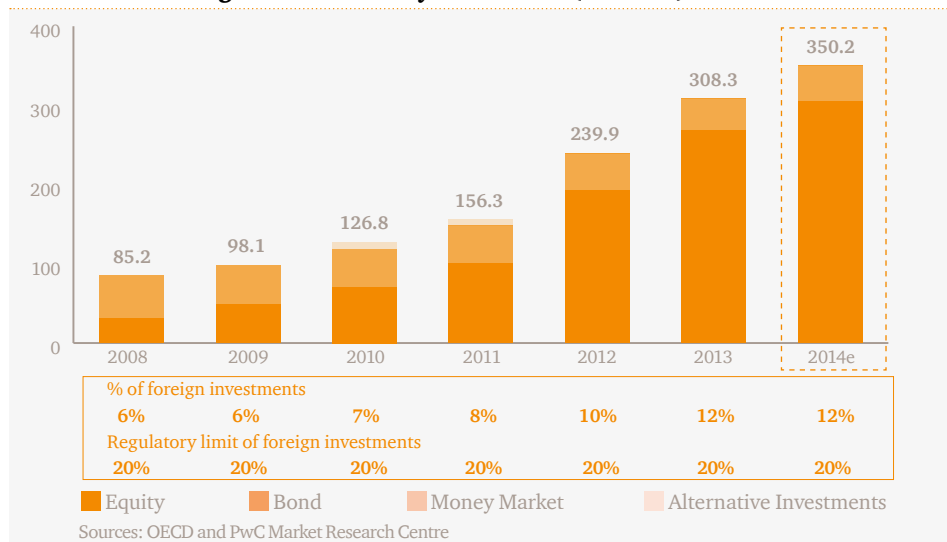
Pension allocation to equities/domestic market cap ratio: 6%



Evolution of Total Assets of Pension Funds by Asset Class (MXN bn)



Evolution of Foreign Investments by Asset Class (MXN bn)



Largest Pension Funds in Mexico

#	Pension fund	AuM 2014 (MXN bn)	Market share (2014e)
1	XXI Banorte	556.8	19.2%
2	Banamex	366.3	12.6%
3	SURA	306.5	10.6%
4	Profuturo	261.9	9.0%
5	Principal	140.7	4.8%
6	Invercap	134.3	4.6%
7	PensionISSSTE	100.2	3.4%
8	Inbursa	99.6	3.4%
9	Coppel	88.3	3.1%
10	Metlife	64.5	2.3%
	Total	2,119.1	73.0%

Sources: CONSAR and PwC Market Research Centre



The Netherlands

Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
197%	92%	26%	76%	No limit	16%	50%*

* Investment funds + mandates in the case of the Netherlands

Overview of Dutch pension funds

Dutch pension assets were equivalent to 197% of the country's EUR 651.8bn GDP at year end 2014 – one of the highest in the world. Moreover, this ratio of pension assets to GDP is still increasing rapidly as pension assets grew at a 6-year CAGR of 7.2%, much faster than GDP growth (6-year CAGR of 0.4%) from 2008 to 2014.

Total assets and asset allocation

The pension market in the Netherlands is well developed and is one of the most mature in the world with AuM of about EUR 1.3tn (USD 1.6tn) in 2014. Moreover, the market is partially concentrated, with the largest three pension funds holding 41.6% of total pension assets and the top ten holding 54.5%.

The Dutch pension fund market owns a high proportion of Defined Benefits (DB) schemes; 92% of Dutch pension schemes are DB schemes. The asset allocation of Dutch pension funds is well diversified with 42% in equities, 38% in bonds, 4% in money market products and 16% in alternative investments (mainly real estate, loans and derivatives). The share of alternative investments has increased in the recent years. For example, ABP, the largest pension fund in the Netherlands, allocated 25% of its assets to alternatives in 2014.

The assets of Dutch pension funds allocated to equities are equivalent to 82% of the total market capitalisation of listed domestic companies. As a result, pension funds invest abroad in order to enlarge their asset pools.

Foreign investments

According to the OECD, the Netherlands does not set any quantitative limit on overall foreign investments or any specific asset classes in pension funds. If they choose to, pension funds in the Netherlands can invest 100% in foreign equities, bonds and investment funds. Currently, Dutch pension funds invest heavily in foreign assets: 76% of their assets are directed to foreign investments.

Allocation to investment funds

Pension funds in the Netherlands invest approximately 50% of their assets directly, with the rest either through investment funds or via mandates to asset managers.

Future trends

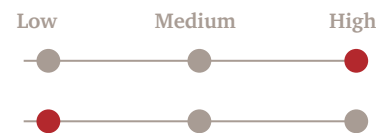
We expect the growing trend of foreign investments to continue in the coming years. With a critically high and increasing old-age dependency ratio (26% in 2014) and a high but decreasing DB/DC ratio, we expect Dutch pension funds to invest more in alternative assets and emerging markets by either investing directly or through mandates or investment funds in order to meet their increasing pension liabilities. With 5,192 cross-border UCITS funds distributed in the Netherlands as at year end 2014, the Dutch market ranks 6th in the world in terms of penetration of foreign UCITS funds.

Maturity of Pensions industry

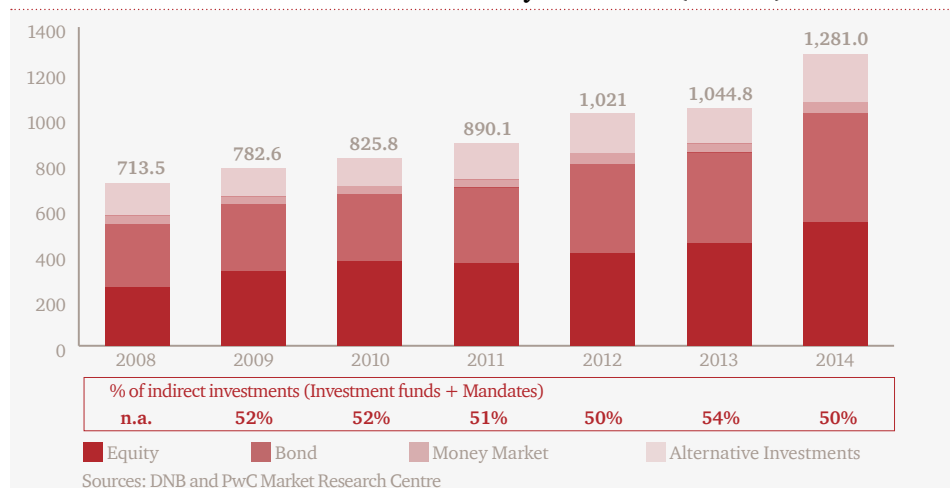
Pension assets/GDP : 197%

Size of domestic equity market

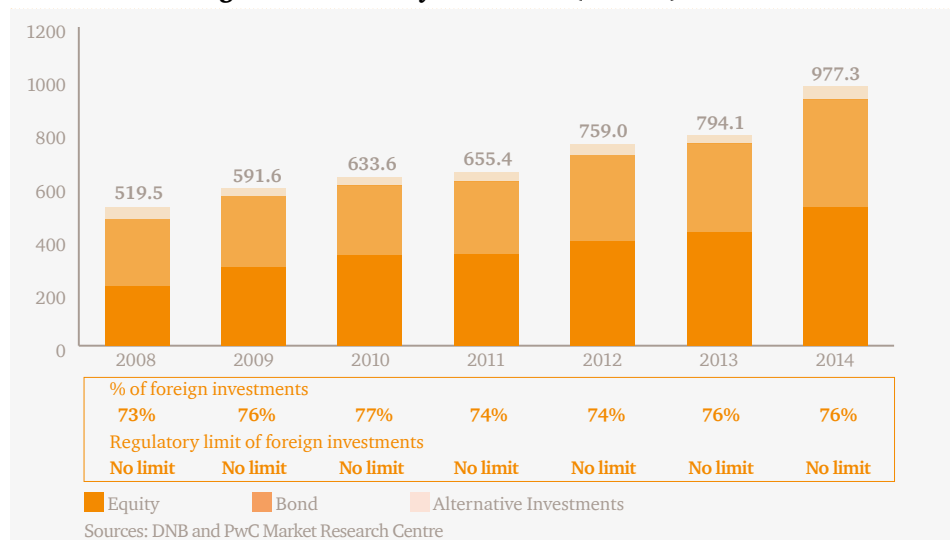
Pension allocation to equities/domestic market cap ratio: 82%



Evolution of Total Assets of Pension Funds by Asset Class (EUR bn)



Evolution of Foreign Investments by Asset Class (EUR bn)



Largest Pension Funds in the Netherlands

#	Pension fund	AuM 2014 (EUR bn)	Market share
1	ABP	328.3	25.6%
2	PZW	153.0	11.9%
3	PMT	52.7	4.1%
4	BpfBOUW	43.4	3.4%
5	Pensioenfond van de Metalektro	35.1	2.7%
6	Shell Nederland	22.7	1.8%
7	ING Groep NV	22.3	1.7%
8	ABN Amro Bank NV	20.8	1.6%
9	Rabobank Nederland	19.5	1.5%
	Total	697.8	54.5%

Sources: OECD, IMF, World Bank, ICI, PwC Market Research, Global Fund Distribution Poster 2015

Sources: IPE and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
8%	43%	25%	29%	No limit	5%	30%

Overview of Norway's pension funds

Norwegian pension assets represented 8% of the country's NOK 3.2tn GDP at year end 2014. The ratio of pension assets to GDP is still increasing rapidly as pension assets grew at a 5-year CAGR of 7.2%, faster than GDP growth (5-year CAGR of 5.0%), from 2009 to 2014.

Total assets and asset allocation

The pension market in Norway is underdeveloped with AuM of about NOK 266.8bn (USD 35.6bn) in 2014. However, Norway held one of the biggest pension funds (Sovereign Wealth Fund) in the world, which is not included in the sector's total assets. The market is highly concentrated, with the two largest pension funds holding more than 50% of total pension assets.

The asset allocation of Norwegian pension funds is diversified with 36% invested in equities, 57% in bonds, 2% in money market products and 5% in alternative investments.

The assets of Norwegian pension funds allocated to equities is equivalent to 5% of the total market capitalisation of listed domestic companies.

According to the OECD, Norway has no regulatory limits in terms of foreign investments for pension funds. Currently, Norwegian pension funds allocate 29% of their portfolios to foreign assets.

Allocation to investment funds

Pension funds in Norway invest most of their assets directly and 30% through investment funds.

Future trends

Despite a reasonable proportion of Defined Benefits (DB) schemes (43%), Norway is experiencing an old age ratio of 25% (2014) which may increase the inherent longevity risk in the long term.

We expect that the small increase in the percentage of foreign investments which started in 2011 will continue in the coming years. As at December 2014, the number of cross-border UCITS funds in Norway was 2,661 with a 9% CAGR from 2009 to 2014.

Government Pension Fund

This fund is where the surplus wealth made by Norwegian oil income is deposited. It is managed by Norge Bank and its financial backing does not come from pension contributions. The funds' market value was NOK 6,431bn at the end of 2014 and it allocated 61% of its value to equity, 37% to bonds and 2% to real estate. Of total investments, 35% is invested in North America, 45% in Europe, and the rest is invested in Asia, Latin America, Oceania, Africa and Middle East. The Norwegian branch of this fund, called Folketrygdfondet (National Insurance scheme), is managed by an external board and has been instructed to invest locally.

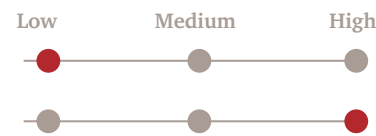
Sources: OECD, IMF, World Bank, ICI, Aon Norway, PwC Market Research Centre and Global Fund Distribution Poster 2015

Maturity of Pensions industry

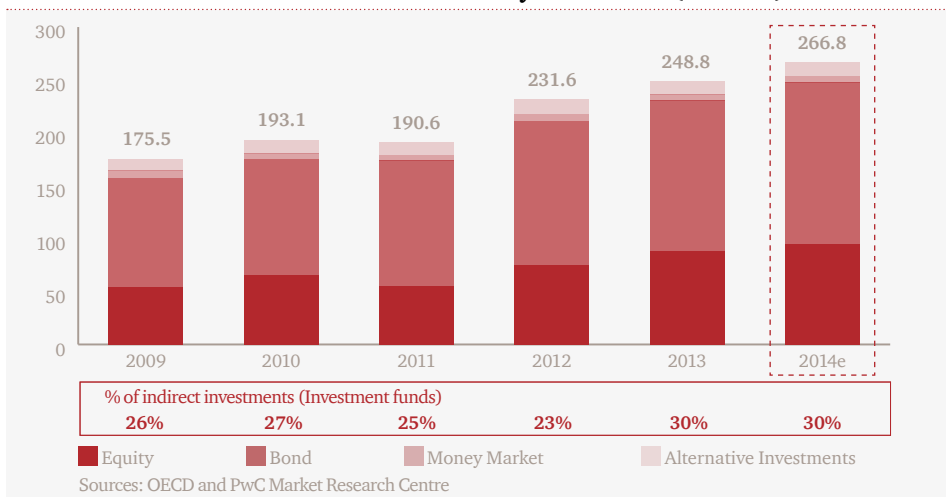
Pension assets/GDP : 8%

Size of domestic equity market

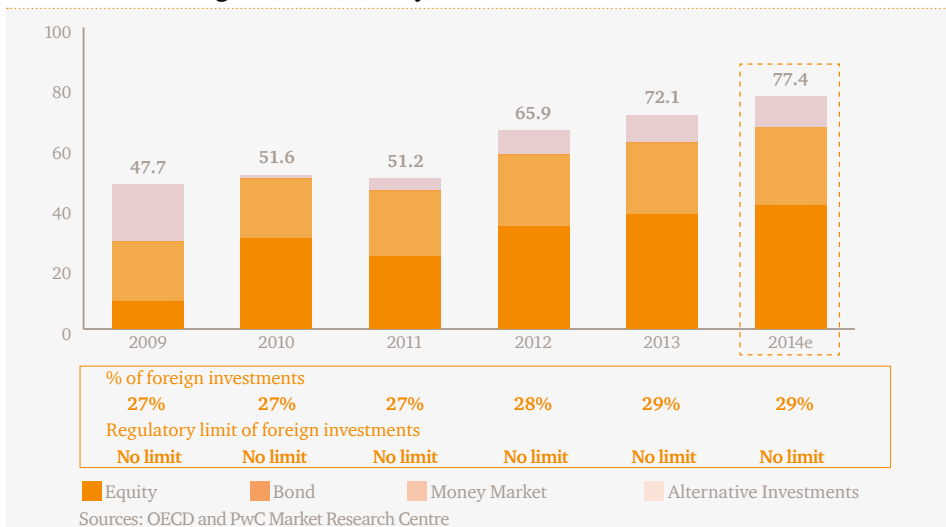
Pension allocation to equities/domestic market cap ratio: 5%



Evolution of Total Assets of Pension Funds by Asset Class (NOK bn)



Evolution of Foreign Investments by Asset Class (NOK bn)



Largest Pension Funds in Norway

#	Pension fund	AuM 2014 (NOK bn)	Market share
1	Norway Government PF Global	6,431.1	Wealth Fund
2	Kommunal Landspensjonskasse	397.5	Insurance & pension
3	Folketrygdfondet	192.8	Wealth Fund
4	Statoil ASA	72.5	27.2%
5	Oslo Kommune	68.9	25.8%
6	Tine SA	13.2	4.9%
7	Norsk Hydro ASA	13.0	4.9%
8	DnB ASA	12.8	4.8%
9	Bergen Kommune	12.1	4.5%
10	Yara International ASA	11.9	4.5%
	Total	204.4	76.6%

Sources: IPE and PwC Market Research Centre

Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
20%	0%	10%	41%	42%	0%	41%

Overview of Peru's pension funds

Peruvian pension assets were equivalent to 20% of the country's PEN 576.1bn GDP at year end 2014. However, the ratio of pension assets to GDP is decreasing; pension assets only grew at a 4-year CAGR of 6.9% between 2010 and 2014, slower than domestic GDP (4-year CAGR of 8.2%).

Total assets and asset allocation

The pension market in Peru is not well developed and is growing slowly with the four pension fund administrators (AFPs) operating in the country managing assets of about PEN 113.9bn (USD 38.3bn) in 2014.

All Peruvian pension funds are Defined Contribution (DC) schemes. The asset allocation of Peruvian pension funds is not well diversified with 55% invested in equities, 38% in bonds, 7% in money market products and no investments in alternatives.

AFPs do not invest in alternatives due to strict national regulations. However, they are gradually changing, expediting investment approvals, and allowing greater flexibility, particularly in the use of alternative investments.

The assets of Peruvian pension funds allocated to equities are the equivalent of 135% of the total market capitalisation of listed domestic companies. This explains why pension funds invest abroad in order to enlarge their asset pools.

Foreign investments

Peruvian pension funds increasingly invest in foreign assets. Currently, 41% of their assets are directed to foreign investments. Following a recent regional trend, the Peruvian regulator is steadily increasing the percentage AFPs can invest in foreign markets. In 2013, authorities began gradually increasing the limit of investments permitted in foreign assets by 0.5% per month to reach 42% in 2014.

Allocation to investment funds

Pension funds in Peru invest approximately 59% of their assets directly and the remaining through domestic and foreign investment funds.

Basically, all foreign investments of Peruvian pension funds are made through investment funds. The use of foreign investment funds has increased significantly in the last four years, showing a 58.3% CAGR from 2010 to 2014.

Future trends

With only DC schemes and a low old-age dependency ratio (10% in 2014), the growing trend of foreign investments depends on the new pending investment regulations which should allow more flexibility and remove impediments to diversification.

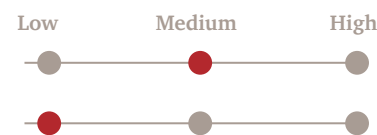
With 769 cross-border UCITS funds distributed in Peru as at the end of 2014 and almost 200 new registrations since 2009, the Peruvian market is open to foreign investment funds.

Maturity of Pensions industry

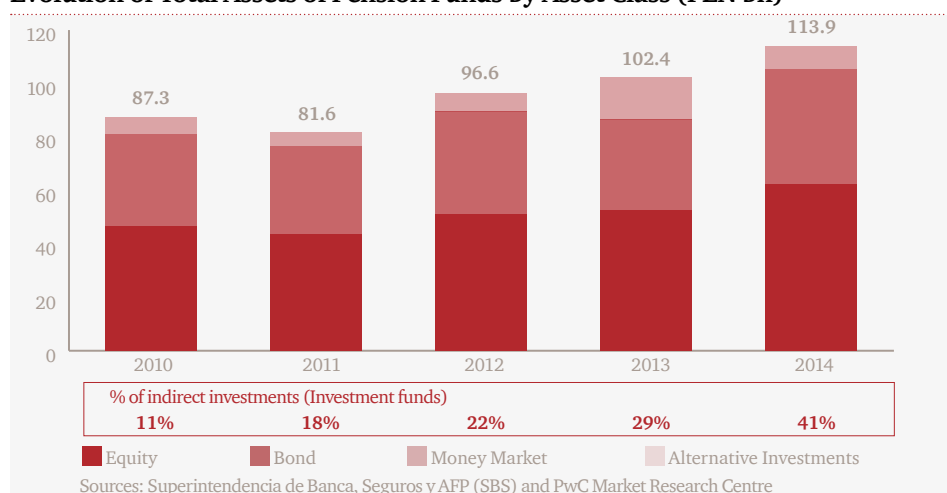
Pension assets/GDP : 20%

Size of domestic equity market

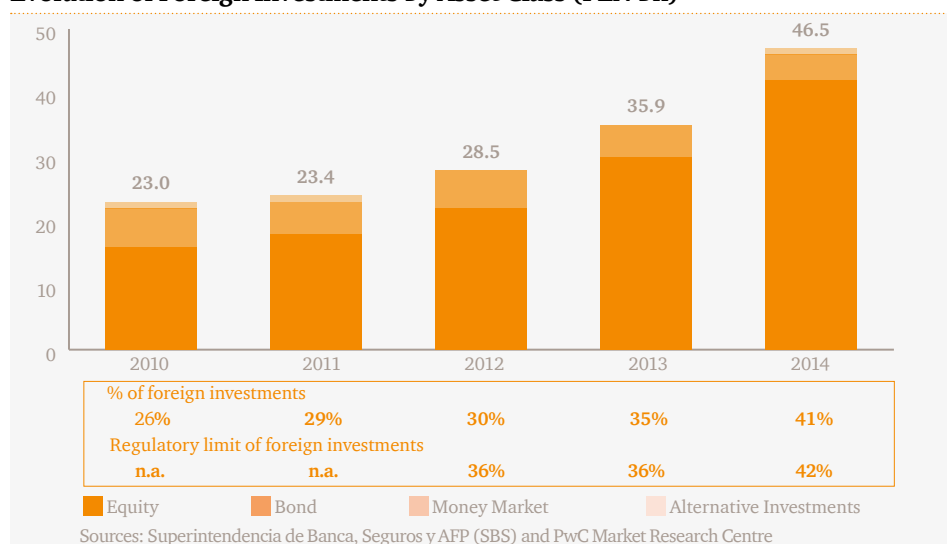
Pension allocation to equities/domestic market cap ratio: 135%



Evolution of Total Assets of Pension Funds by Asset Class (PEN bn)



Evolution of Foreign Investments by Asset Class (PEN bn)



Pension Funds in Peru

#	Pension fund administrators	AuM 2014 (PEN bn)	Market share (2014)
1	Integra	46.8	41.1%
2	Prima	36.4	32.0%
3	Profuturo	30.2	26.5%
4	Habitat	0.5	0.4%
	Total	113.9	100%

Sources: Superintendencia de Banca, Seguros y AFP (SBS) and PwC Market Research Centre

Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
18%	0%	21%	1%	5%	Less than 1%	Less than 1%

Overview of Poland's pension funds

Polish pension assets were equivalent to 18% of the country's PLN 1.7tn GDP at year end 2013. The ratio of pension assets to GDP increased from 11% in 2008 to 18% in 2013 as pension assets grew at a 5-year CAGR of 16.7%, much faster than GDP growth (5-year CAGR of 5.4%). In December 2013, the Polish government introduced a bill that requires open pension funds (OPFs) to transfer 51.5% of their assets, primarily in treasury bonds and treasury bills, to the state's Social Security Institution (ZUS), making open pension funds significantly different players than they used to be. Because the new data, as at 2014, have not yet been released, an estimation of the total 2014 assets is not easy to predict.

Total assets and asset allocation

The pension market in Poland is not well developed with AuM of about PLN 300bn (USD 98.7bn) in 2013. The market is extremely concentrated, with the three largest pension funds holding almost 60% of total pension assets.

All Polish pension schemes are Defined Contribution (DC). In 2013, Polish pension funds allocated 40% of their investments to equities, 54% to bonds and 6% to money market products. Alternative investments (mainly loans and derivatives) accounted for less than 1% of total pension fund assets in 2013. The assets of pension funds allocated to equities are equivalent to 54% of total market capitalisation.

Foreign investments

According to the OECD, Poland sets a quantitative limit on overall foreign investments for OPFs. In 2013, the foreign investment of pension funds accounted for 1% of total pension assets.

Allocation to investment funds

Pension funds in Poland invested less than 1% of their assets via investment funds in 2013. The relative size of closed-end investment funds has been decreasing during the last five years. According to the latest regulation, OPFs are permitted to invest a maximum of 10% of total assets in closed-end investment funds and 15% in open-end funds.

Future trends

We expect the portion of assets allocated to equity and bonds to remain steady in the coming years. The share of Polish treasury bonds and state-backed bonds will decrease due to the fact that OPFs are not allowed to invest in government bonds, as of February 2014. This change will increase OPFs' allocation to other asset classes.

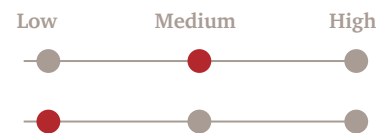
Moreover, we expect foreign investment will increase in the future due to a rise in the amount funds are permitted to allocate to investments abroad: 10% in 2014, 20% in 2015 and 30% in 2016. With 461 UCITS funds registered at year end 2014, the Polish market has confirmed its partial openness to foreign investments.

Maturity of Pensions industry

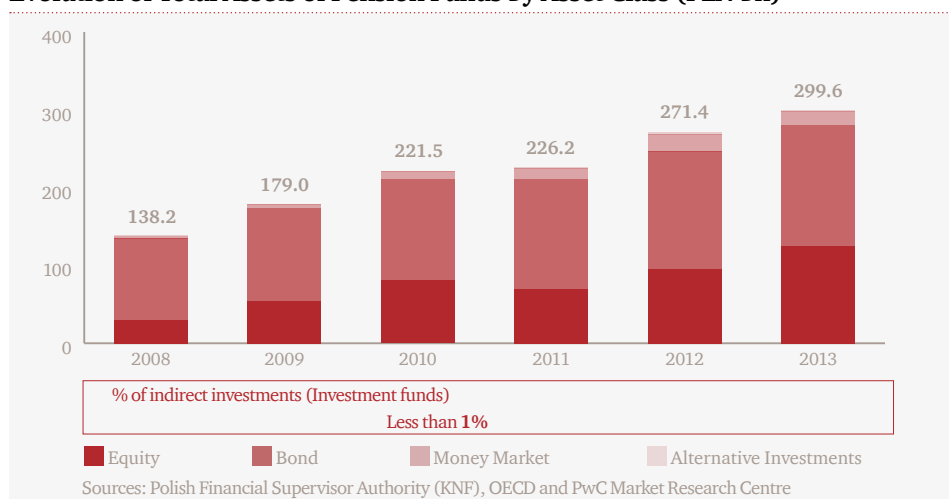
Pension assets/GDP : 18%

Size of domestic equity market

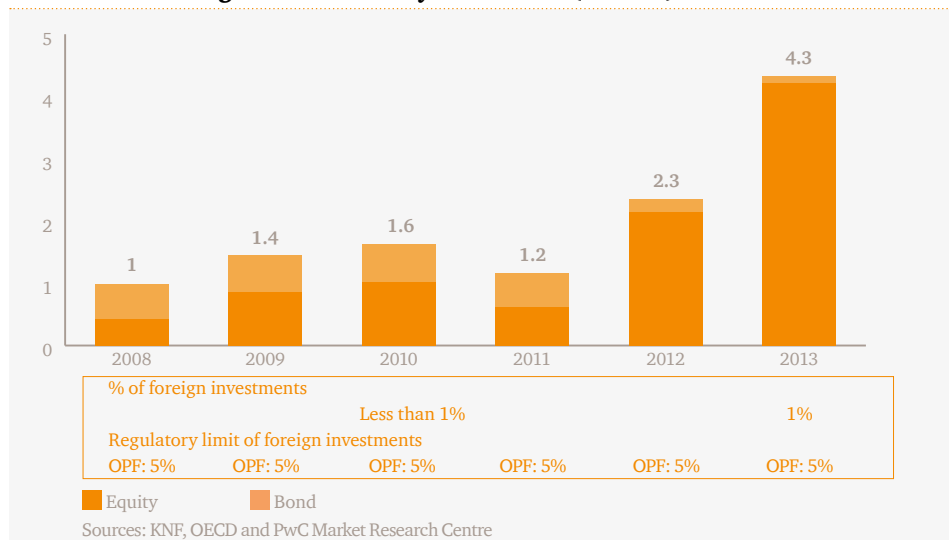
Pension allocation to equities/domestic market cap ratio: 54%



Evolution of Total Assets of Pension Funds by Asset Class (PLN bn)



Evolution of Foreign Investments by Asset Class (PLN bn)



Largest Pension Funds in Poland

#	Pension fund	AuM 2013 (PLN bn)	Market share
1	ING OFE	72.1	24.1%
2	Aviva OFE Aviva BZ WBK	66.9	22.3%
3	OFE PZU "Złota Jesień"	40.0	13.4%
4	Amplico OFE	24.3	8.1%
5	AXA OFE	18.7	6.2%
6	Generali OFE	15.0	5.0%
7	Nordea OFE	13.5	4.5%
8	PKO BP Bankowy OFE	13.2	4.4%
9	AEGON OFE	12.6	4.2%
Total		276.3	92.2%

Sources: KNF and PwC Market Research Centre

Sources: OECD, IMF, World Bank, Polish Financial Supervisor Authority (KNF), FT (2014), Reuters (2013) and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
9%	85%	29%	57%	No limit for Euro zone	24%	26%

Overview of Portugal's pension funds

Portuguese pension assets were equivalent to 9% of the country's EUR 173.1bn GDP at year end 2014. The ratio of pension assets to GDP has been declining in recent years as pension assets decreased much faster than GDP from 2009 to 2014 with a -6.4% CAGR compared to a -0.3% GDP growth in the same period. Two main measures have been taken by the Portuguese government in order to make the public retirement system more sustainable: cutting state pensions and raising the retirement age.

Total assets and asset allocation

The pension market in Portugal is not well developed with AuM of about EUR 16.9bn (USD 20.4bn) in 2014. The market is extremely concentrated, with the three largest pension funds holding more than 60% of total pension assets.

In 2014, 85% of Portuguese pension schemes were Defined Benefits (DB) schemes. This figure is decreasing slightly due to the recent statutory pensions system reform which encourages private pension savings. In 2014, the asset allocation of Portuguese pension funds showed a sound degree of diversification with 20% of total assets allocated to equities, 44% to bonds, 12% to money market products and 24% to alternative investments (mainly real estate). The share of alternative investments has increased from 16% in 2009.

The assets of Portuguese pension funds allocated to equities are equivalent to 5% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, Portugal sets limits on overall foreign investments for pension funds. Specifically, there is a 30% limit on investments in currencies other than the Euro and a 15% limit on investments in assets not traded in an EU- or OECD-regulated market. For PPR* pension funds, the limit is 10%. Currently, Portuguese pension funds invest 57% of their assets in foreign investments.

Allocation to investment funds

Pension funds in Portugal invest most of their assets directly and 26% through investment funds.

Future trends

In light of the current turmoil faced by the Portuguese pension system, recovering the former level of assets is a major priority. In terms of diversification, Portuguese pension funds may increase their exposure to equities, either foreign or domestic, in order to support the development of the local economy.

The use of foreign funds may be a solution for Portuguese pension funds to improve their diversification. They already allocate 26% of their pension assets to this vehicle, and 1,512 cross-border UCITS funds are already available in Portugal.

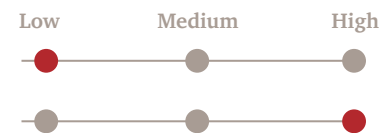
*Individual contributions to personal pension and education plans

Maturity of Pensions industry

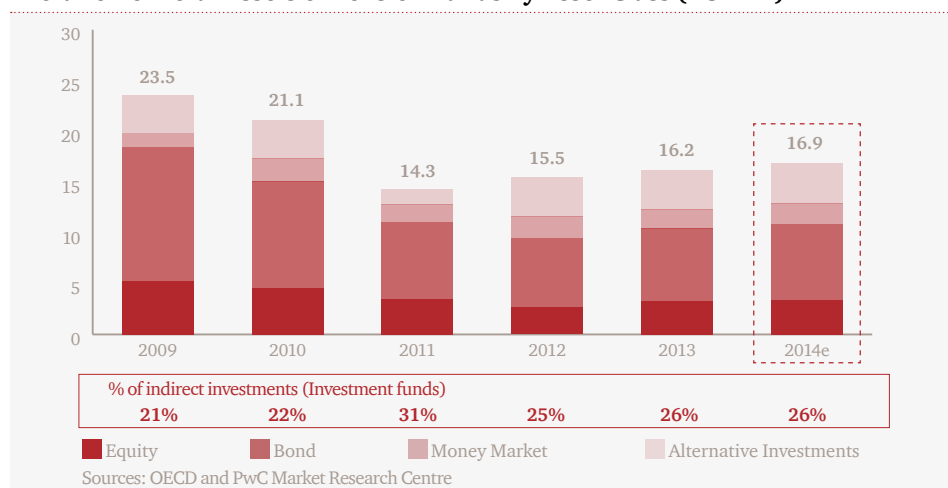
Pension assets/GDP : 9%

Size of domestic equity market

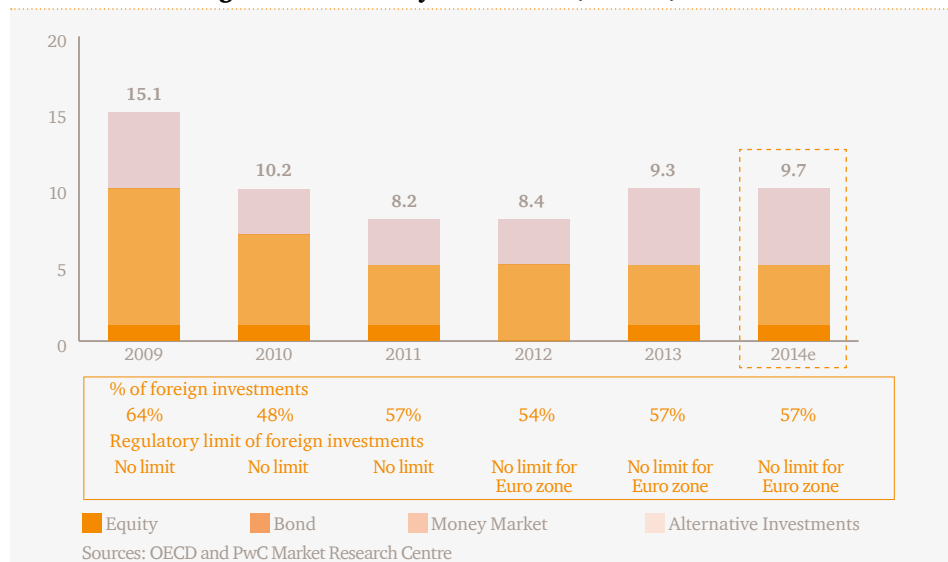
Pension allocation to equities/domestic market cap ratio: 5%



Evolution of Total Assets of Pension Funds by Asset Class (EUR bn)



Evolution of Foreign Investments by Asset Class (EUR bn)



Largest Pension Funds in Portugal

#	Pension fund	AuM 2014 (EUR bn)	Market share (2014e)
1	Pensõesgere	4.9	29.0%
2	CGD Pensões	3.1	18.3%
3	BPI Vida e Pensões	2.2	13.0%
4	GNB SGFP	1.8	10.7%
5	oc. Gestora Banco de Portugal	1.6	9.5%
6	Futuro	1.3	7.7%
7	Santander Pensões	0.9	5.3%
8	BBVA Fundos	0.3	1.8%
9	Banif Açor Pensões	0.3	1.8%
10	Eurovida	0.2	1.2%
	Total	16.6	98.3%

Source: Autoridade de Supervisão de Seguros e Fundos de Pensões (ASF)



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
31%	73%	17%	22%	30%-70%	10%	27%*

*Investment funds + mandates in the case of South Korea

Overview of South Korea's pension funds

The assets of South Korea's National Pension Service (NPS)* were equivalent to 31% of the country's KRW 1,491tn GDP at year end 2014. Moreover, this ratio of pension assets to GDP continues to increase rapidly. Assets grew at a 6-year CAGR of 12.2%, much faster than GDP growth (6-year CAGR of 5.1%), between 2008 and 2014.

Total assets and asset allocation

The pension market in South Korea is fairly developed and very concentrated, with one pension fund holding about 90% (USD 426.5bn) of the total pension fund AuM in 2014.

In 2014, 73% of South Korean pensions were Defined Benefit (DB) schemes.

The asset allocation of the NPS is fairly diversified with 60% of total assets invested in equities, 30% in bonds and 10% in alternative investments. The share of alternative investments, however, has increased in recent years from 4% in 2008 to 10% in 2014.

The NPS assets allocated to equities are the equivalent of 66% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, South Korean pension funds are allowed to invest between 30%-70% of their assets in foreign investments. Currently, the NPS invests 22% of its assets abroad.

Allocation to investment funds

The NPS invests most of its assets directly and 27% through investment funds and mandates.

Future trends

In light of an increasing old-age dependency ratio (17% in 2014) and a high DB/DC ratio, the NPS has already taken appropriate measures to diversify its investment portfolio in terms of geographical exposure (22% of foreign investments). This trend of foreign investments is expected to continue in the coming years, as plans were undertaken to increase overseas holdings by more than 10% within five years. On the one hand, the NPS wants to continue to increase this allocation to attractive emerging markets, including China's domestic A-shares market as well as its exposure to alternative investments in its home region. On the other hand, it must invest more abroad to avoid roiling local financial markets.

Regarding the use of investment funds, with 364 cross-border UCITS funds distributed in South Korea as at year end 2014 and 37 new registrations during that year, the South Korean market had an 11% increase over the previous year, and shows openness to foreign investment funds.

*Note: For means of analysis we only looked at the largest pension fund in the market: National Pension Service (NPS), as this fund holds about 90% of the assets of South Korean pension funds.

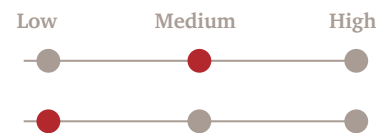
Sources: OECD, IMF, World Bank, Reuters.com (2014), Plonline.com (2015), PwC Market Research Centre and Global Fund Distribution Poster 2015

Maturity of Pensions industry

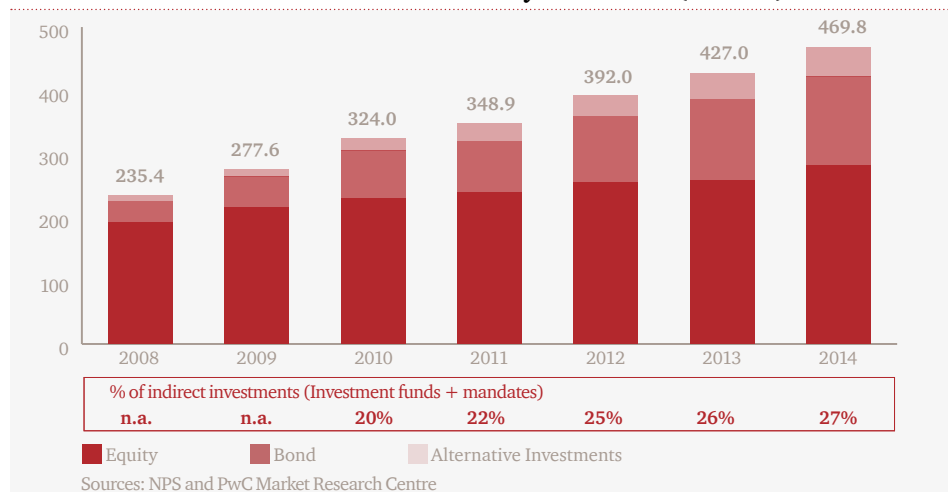
Pension assets/GDP : 31%

Size of domestic equity market

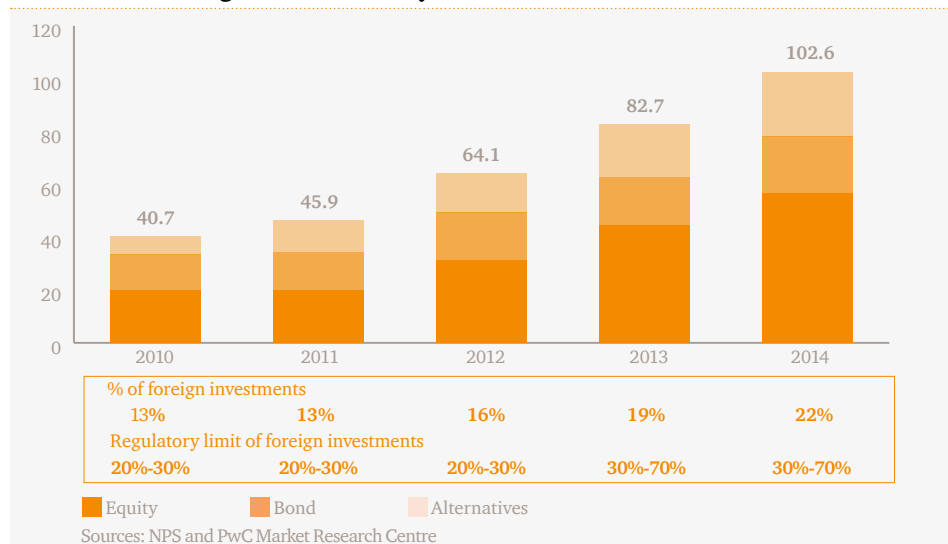
Pension allocation to equities/domestic market cap ratio: 66%



Evolution of Total Assets of Pension Funds by Asset Class (KRW tn)



Evolution of Foreign Investments by Asset Class (KRW tn)



Largest Pension Funds in South Korea

#	Pension fund	AuM 2014* (KRW tn)
1	National Pension Service (NPS)	469.8
2	Korea Teachers' Credit Union (KTCU)	22.0
3	Korea Teachers' Pension (KTPF)	13.2
4	The Military Mutual Aid Association (MMAA)	6.0
5	Government Employees Pension Service (GEPS)	4.2
	Total	514.2

*Note: 2013 figures for KTPF, MMAA and GEPS

Sources: privateequitykorea.com (2013), koreatimes.co.kr (2014), asksummit.co.kr (2014) and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
14%	28%	27%	17%	No limit	11%	13%

Overview of Spain's pension funds

Spanish pension assets based on estimates were equivalent to 14% of the country's EUR 1.1tn GDP in 2014. The ratio of pension assets to GDP has been increasing in recent years as pension assets grew faster than GDP with a 2.7% CAGR from 2010 to 2014 compared to a negative GDP CAGR (-0.5%) in the same period. The Spanish government has introduced measures aimed at reducing the State deficit by cutting pensions together with encouraging the development of the second pillar (employer contributions).

Total assets and asset allocation

The pension market in Spain is not well developed with AuM of about EUR 149.1bn (USD 180.4bn) in 2014. Moreover, the largest pension fund already accounts for 36.6% of total pension assets, which indicates a big discrepancy within the market structure.

In 2014, 28% of Spanish pension schemes were Defined Benefit (DB) schemes. The asset allocation of Spanish pension funds was not well diversified with 11% of total assets invested in equities, 63% in bonds, 15% in money market products and 11% in alternative investments. The share of alternative investments has remained stable in recent years (between 11% and 12% of total assets in the last five years).

The assets of Spanish pension funds allocated to equities are the equivalent of 2% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, Spain does not set any quantitative limit on overall foreign investments or any specific asset classes for pension funds. Pension funds can invest 100% of their assets in foreign equities, bonds and investment funds. Currently, they invest only 17% in foreign assets.

Allocation to investment funds

Pension funds in Spain invest most of their assets directly and 13% through investment funds.

Future trends

Coupled with the measures introduced by the government to ensure the sustainability of the pension system, Spanish pension funds may increase their exposure to foreign equities and allocation to alternatives in order to ensure a proper level of diversification.

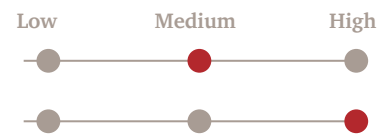
The use of investment funds is still limited (13%) but 4,737 cross-border UCITS funds are already distributed in Spain showing the openness of the country to foreign products.

Maturity of Pensions industry

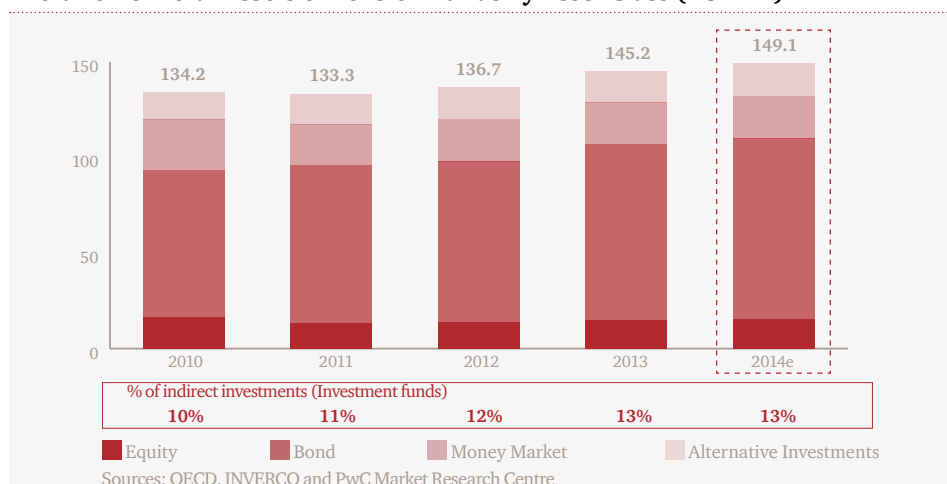
Pension assets/GDP : 14%

Size of domestic equity market

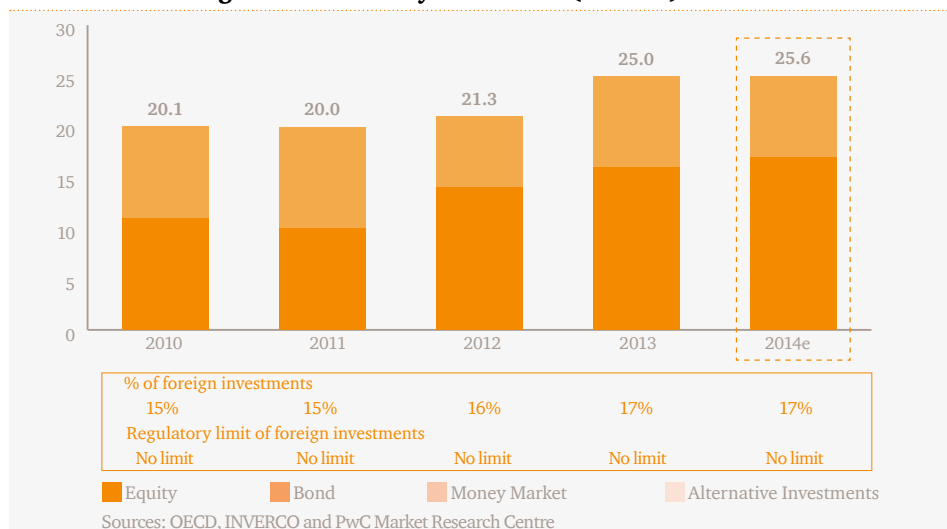
Pension allocation to equities/domestic market cap ratio: 2%



Evolution of Total Assets of Pension Funds by Asset Class (EUR bn)



Evolution of Foreign Investments by Asset Class (EUR bn)



Largest Pension Funds in Spain

#	Pension fund	AuM 2014 (EUR bn)	Market share (2014e)
1	Fondo de Reserva de la Seguridad Social	54.6	36.6%
2	Caixa Bank	5.3	3.6%
3	Banco Bilbao Vizcaya Argentaria	3.0	2.0%
4	Telefonica de Espana	2.9	1.9%
5	Endesa	2.8	1.9%
6	Geroa Pentosioak	1.5	1.0%
7	Iberdrola	1.1	0.7%
8	Banco Popular	1.0	0.7%
9	Gas Natural Fenosa	0.8	0.6%
10	Banco de Sabadell	0.7	0.5%
	Total	73.7	49.4%



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
71%	16%	31%	17%	No limit	6%	58%

Overview of Sweden's pension funds

Swedish pension assets based on estimates were equivalent to 71% of the country's SEK 3.9tn GDP in 2014. The ratio of pension assets to GDP has been increasing in recent years as pension assets grew faster than GDP with a 7.8% CAGR from 2011 to 2014 compared to a 2.2% GDP CAGR in the same period.

Total assets and asset allocation

The pension market in Sweden is well developed with AuM of about SEK 2.8tn (USD 354.1bn) in 2014. Moreover, the largest three pension funds already account for more than 50% of total pension assets, which indicates a high concentration within the pension market.

In 2014, 16% of Swedish pensions were Defined Benefit (DB) schemes. The asset allocation of Swedish pension funds was not well diversified with 15% of total assets invested in equities, 75% in bonds, 4% in money market products and 6% in alternative investments (real estate, private equity and hedge funds).

The assets of Swedish pension funds allocated to equities are the equivalent of 9% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, Sweden does not set any quantitative limit on overall foreign investments or any specific asset classes for pension funds. Pension funds can invest 100% of their assets in foreign equities, bonds and investment funds. Currently, they invest only 17% in foreign assets.

Allocation to investment funds

Pension funds in Sweden invest most of their assets through investment funds (58%) and the rest are invested directly.

Future trends

Sweden is one of the few countries that distributes the accumulated capital of the deceased person among the survivors of the same birth cohort. Moreover, Sweden's current solvency requirement does not reflect significant inherent longevity risks associated with the country's old age ratio of 31% in 2014.

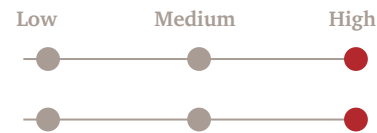
The percentage of foreign investments will likely increase in the coming years. As at December 2014, the number of cross-border UCITS funds in Sweden was 4,207 with a 10.6% CAGR from 2009 to 2014, showing the openness of the country to foreign products.

Maturity of Pensions industry

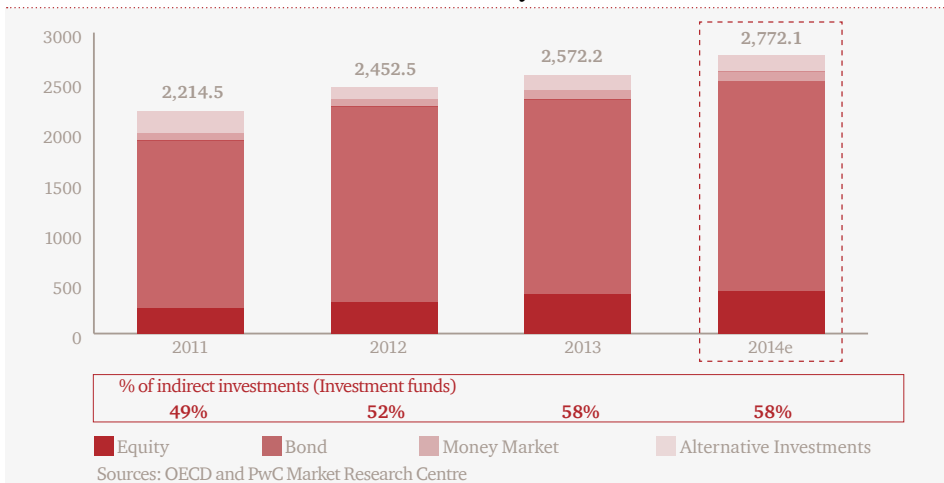
Pension assets/GDP : 71%

Size of domestic equity market

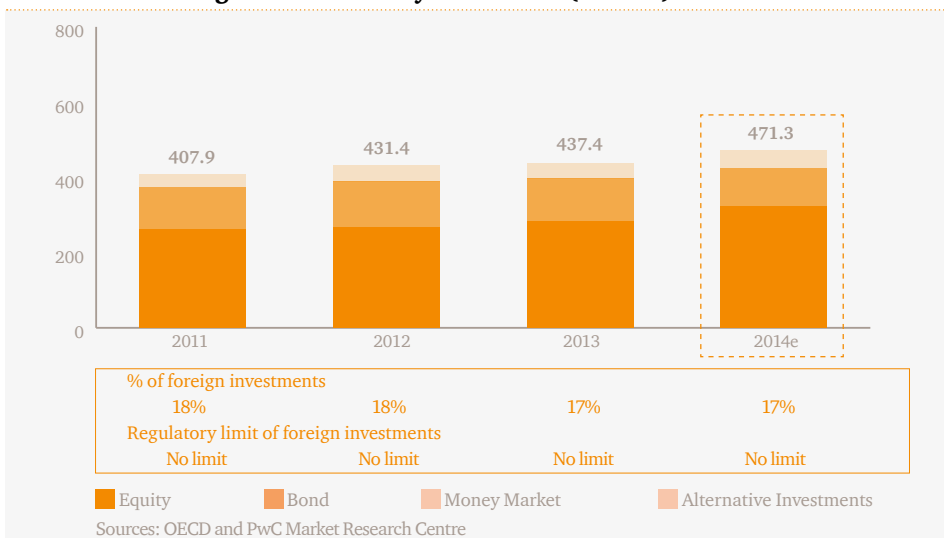
Pension allocation to equities/domestic market cap ratio: 9%



Evolution of Total Assets of Pension Funds by Asset Class (SEK bn)



Evolution of Foreign Investments by Asset Class (SEK bn)



Largest Pension Funds in Sweden

#	Pension fund	AuM 2014 (SEK bn)	Market share (2014e)
1	Alecta Pensionsförsäkring	637.1	23.0%
2	AMF	458.7	16.5%
3	Tredje AP-fonden (AP3)	342.1	12.3%
4	Andra AP-fonden (AP2)	305.1	11.0%
5	Fjärde AP-fonden (AP4)	295.0	10.6%
6	Första AP-fonden (AP1)	283.8	10.2%
7	Sjunde AP-fonden (AP7)	200.9	7.2%
8	KPA Pensionsförsäkring	107.3	3.9%
9	Kapan Pensioner	63.7	2.3%
10	SAS AB	33.3	1.2%
	Total	2,727.0	98.2%

Sources: OECD, IMF, World Bank, ICI, IPE, Institute and Faculty of Actuaries, PwC Market Research Centre and Global Fund Distribution Poster 2015

Source: IPE and PwC Market Research Centre



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
117%	100%	26%	39%	30% foreign currency	27%	50%

Overview of Switzerland's pension funds

Swiss pension assets, based on estimations, were equivalent to 117% of the country's CHF 651.8bn GDP at year end 2014. Moreover, this ratio of pension assets to GDP is still increasing as pension assets have grown at a 6-year CAGR of 6% from 2008 to 2014, faster than domestic GDP (6-year CAGR of 1.5%).

Total assets and asset allocation

The pension market in Switzerland is well developed with AuM of about CHF 763bn (USD 768.1bn) in 2014. Moreover, the market is well fragmented with the largest pension funds not holding more than 4% of total pension assets.

All Swiss pension funds are Defined Benefit (DB) schemes. The asset allocation of Swiss pension funds is well diversified with 29% invested in equities, 36% in bonds, 8% in money market products, and 27% in alternative investments (mainly real estate). Whereas the share of bonds has decreased in recent years, from 43% in 2008 to 36% in 2014, the share of equities has grown from 22% to 29% in the same time period. The share of alternatives has remained constant during this period.

The assets of Swiss pension funds allocated to equities are the equivalent of 16% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, Switzerland sets foreign investment limits only on foreign currency, but there is no limit on overall foreign investments. Pension funds in Switzerland can invest up to 30% in foreign currency (hedging allowed). Since 2008, Swiss pension funds have been increasingly investing in foreign assets. Currently, 39% of their assets are directed to foreign investments, steadily increasing from 35% in 2008.

Allocation to investment funds

Pension funds in Switzerland invest approximately 50% of their assets directly with the remaining invested through investment funds.

Future trends

We expect the slow but steady growth of foreign investments to continue in the coming years. With a high and increasing old-age dependency ratio (26% in 2014) and a 100% DB/DC ratio, we expect Swiss pension funds to maintain their diversified portfolios and invest abroad to meet increasing pension liabilities.

However, the 30% foreign currency limit might hinder Swiss pension funds from increasing their geographical diversification.

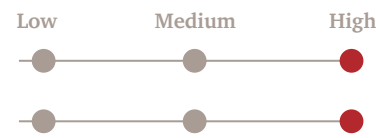
The Swiss foreign UCITS funds market is largely accessible, with 6,295 cross-border UCITS funds distributed in Switzerland as at the end of 2014. Moreover, it ranks second worldwide in terms of penetration of foreign UCITS funds.

Maturity of Pensions industry

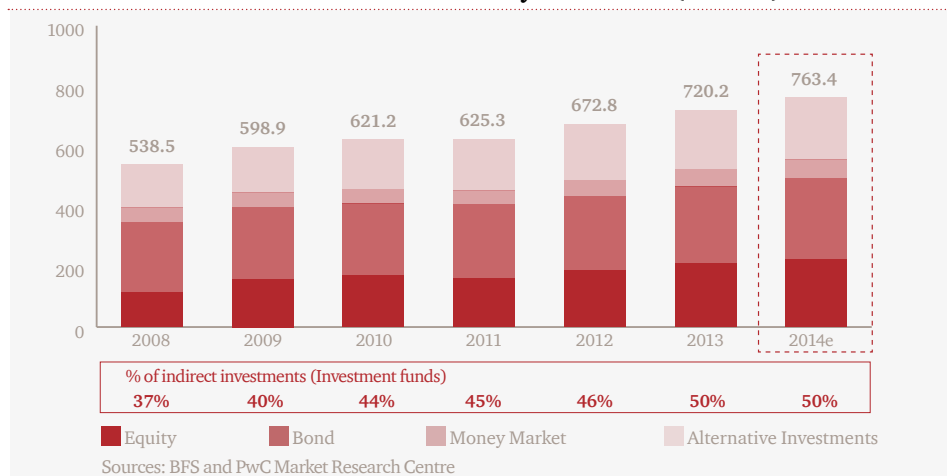
Pension assets/GDP : 117%

Size of domestic equity market

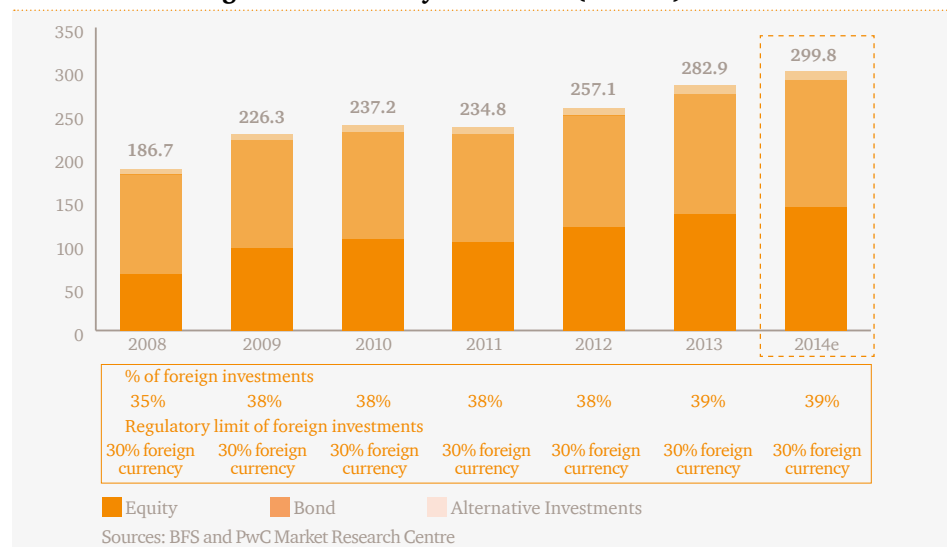
Pension allocation to equities/domestic market cap ratio: 16%



Evolution of Total Assets of Pension Funds by Asset Class (CHF bn)



Evolution of Foreign Investments by Asset Class (CHF bn)



Largest Pension Funds in Switzerland

#	Pension fund	AuM 2014 (CHF bn)	Market share (2014e)
1	PUBLICA	30.2	4.1%
2	BVG-Sammelstiftung Swiss Life	25.8	3.5%
3	Swiss Federal Social Security Funds	25.3	3.4%
4	Kanton Zürich	22.0	3.0%
5	UBS AG	18.9	2.6%
6	Migros	16.6	2.3%
7	Novartis AG	14.1	1.9%
8	chweizerische Bundesbahnen (SBB)	12.9	1.8%
9	Swiss Post	12.9	1.8%
10	Credit Suisse Group	12.6	1.7%
	Total	191.3	26%



Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
107%	72%	28%	28%	No limit	31%	28%

Overview of the UK's pension funds

British pension assets were equivalent to 107% of the country's GBP 1.8tn GDP at year end 2014 – one of the highest in the world. Moreover, this ratio of pension assets to GDP is still increasing rapidly as pension assets grew at a 6-year CAGR of 12% between 2008 and 2014, much faster than GDP growth (6-year CAGR of 2.8%).

Total assets and asset allocation

The pension market in the UK is well developed and fragmented. Moreover, it is one of the most mature worldwide with AuM of more than GBP 1.9tn (USD 3tn) in 2014. The market is also well fragmented, with the largest nine pension funds holding 12.8% of total pension assets.

In 2014, 72% of British pension funds were Defined Benefit (DB) schemes. The asset allocation of UK's pension funds is well diversified with 17% invested in equities, 21% in bonds, 3% in money market products, 28% in investment funds and 31% in alternative investments (mainly direct loans and derivatives). The share of alternative investments has increased in the recent years, from 25% in 2008 to 31% in 2014.

The assets of British pension funds allocated to equities are the equivalent of 15% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, the United Kingdom does not set any quantitative limit on overall foreign investments or any specific asset classes for pension funds. Currently, British pension funds invest moderately in foreign assets: 28% of their assets are foreign investments.

Allocation to investment funds

Pension funds in the UK invest 72% of their assets directly and the remaining through investment funds. Overseas investment funds accounted for 37% of total investment fund investments in 2014.

From 2008 to 2014, the allocation has grown faster to overseas investment funds than to domestic investment funds (6-year CAGR of 23% and 15%, respectively).

Future trends

With a critically high and increasing old-age dependency ratio (28% in 2014), a high DB/DC ratio, and no foreign investment limits, we expect British pension funds to continue the geographical diversification of their portfolios by either investing directly or through investment funds.

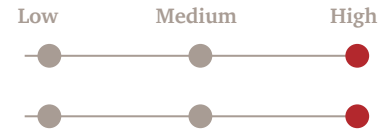
With more than 10% of pension fund assets allocated to foreign investment funds and already 5,606 cross-border UCITS funds distributed in the UK as at the end of 2014, the British market appears to be a promising market for the distribution of foreign investment funds to local pension funds.

Maturity of Pensions industry

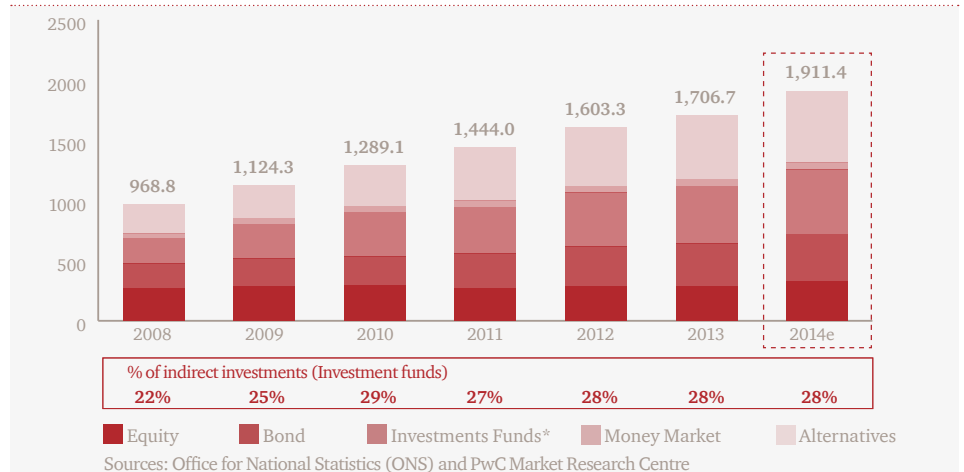
Pension assets/GDP : 107%

Size of domestic equity market

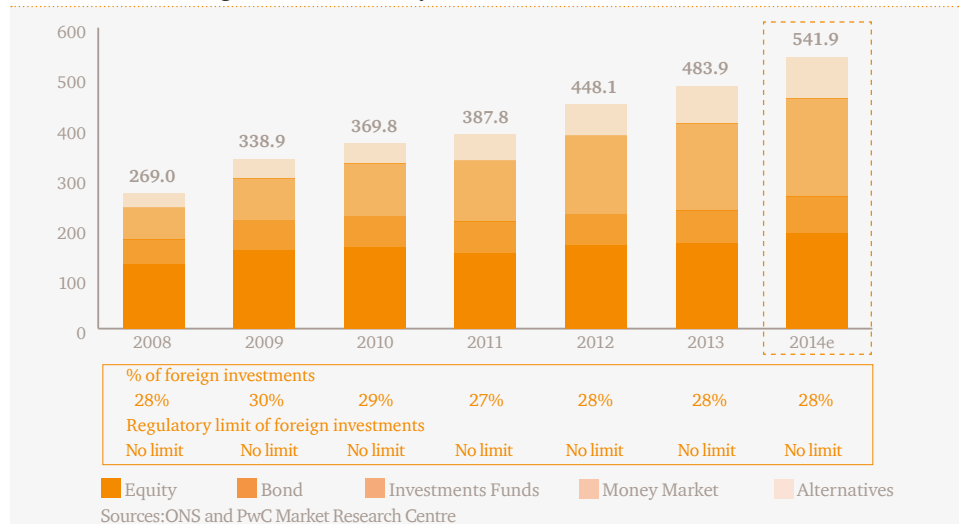
Pension allocation to equities/domestic market cap ratio: 15%



Evolution of Total Assets of Pension Funds by Asset Class (GBP bn)



Evolution of Foreign Investments by Asset Class (GBP bn)



Largest Pension Funds in the United Kingdom

#	Pension fund	AuM 2014 (GBP bn)	Market share (2014e)
1	BT Pension Scheme	36.3	1.9%
2	Universities Superannuation	34.4	1.8%
3	Electric Supply Pension	30.1	1.6%
4	Lloyds Banking Group	22.6	1.2%
5	Royal Bank Scotland	22.6	1.2%
6	Barclays Bank	22.2	1.2%
7	British Coal Pension	20.1	1.1%
8	Railways Pension	19.5	1.0%
9	HSBC Bank	19.3	1.0%
	Total	227.1	11.9%

Sources: Towers Watson and PwC Market Research Centre

Sources: OECD, IMF, World Bank, Office for National Statistics (ONS), PwC Market Research Centre and Global Fund Distribution Poster 2015



United States

Pension assets/GDP	% Defined Benefit schemes	Old-age dependency ratio	% Foreign investments	Regulatory limit foreign investments	% Alternative investments	% Investments funds
146%	35%	21%	n.a.	No limit	29%	33%

Overview of the US's pension funds

US pension assets were equivalent to 146% of the country's USD 17tn GDP at year end 2014, one of the highest ratios of pension assets to GDP in the world. Moreover, the ratio increased rapidly from 2008 to 2014, as pension assets grew at a 6-year CAGR of 9.5%, much faster than GDP growth (6-year CAGR of 2.8%).

Total assets and asset allocation

The pension market in the US is well developed and is the largest in the world with AuM of USD 24.6tn in 2014. The market is highly fragmented, with the largest ten pension funds holding 6.7% of total pension assets.

In 2014, 35% of US pensions assets were held by Defined Benefits (DB) schemes. The asset allocation of America's pension funds is diversified with 49% invested in equities, 21% in bonds, 1% in money market products and 29% in alternative investments. Equity and alternative investments, in particular, saw a big increase from 2008 to 2014, with CAGRs of 10.8% and 13.6% respectively during that period.

The assets of US pension funds allocated to equities are the equivalent of 53% of the total market capitalisation of listed domestic companies.

Foreign investments

According to the OECD, America does not set any quantitative limit on overall foreign investments or any specific asset classes for pension funds. They can invest 100% in foreign equities, bonds and investment funds.

Allocation to investment funds

Currently, pension funds in the US invest 33% of their assets through investment funds. In 2014, domestic equity funds remained the largest asset class within investment funds, accounting for 45%. World equity funds accounted for 13% of total investment fund assets, basically retaining the same share from 2008 to 2014. While bond funds have increased their share, money market funds have decreased from 14% in 2008 to 5% in 2014.

Future trends

Due to a relatively high and increasing old-age dependency ratio (21% in 2014), we expect US pension funds to continue their investment strategy of investing more in equities and alternative investments.

Information regarding foreign investments made by pension funds is not readily available. However, world equity investments show demand for foreign exposure to increase diversification.

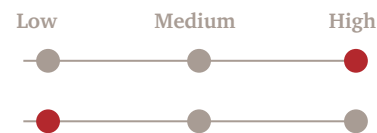
Investments through investment funds are expected to continue increasing. At the same time, the US investment funds market is quite closed to UCITS funds because local asset managers are already key players in the UCITS market and they have similar fund products domiciled domestically. We expect this scenario will not change in the foreseeable future.

Maturity of Pensions industry

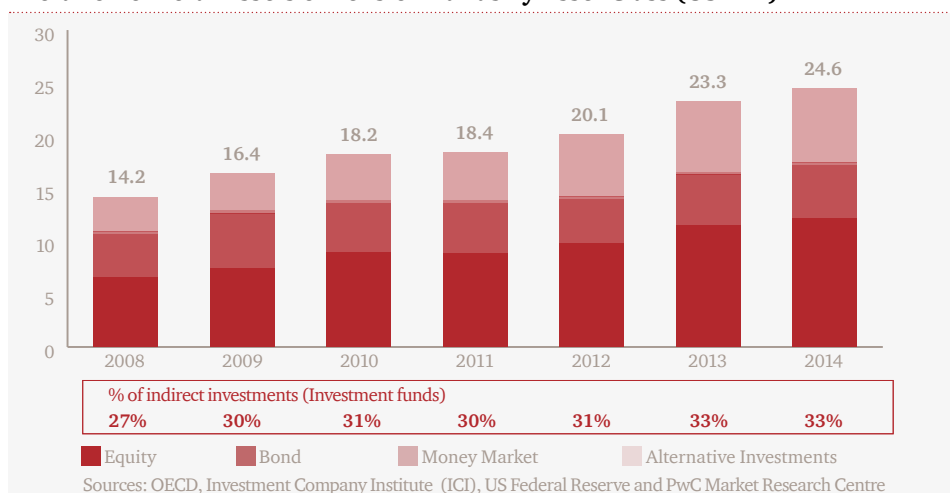
Pension assets/GDP : 146%

Size of domestic equity market

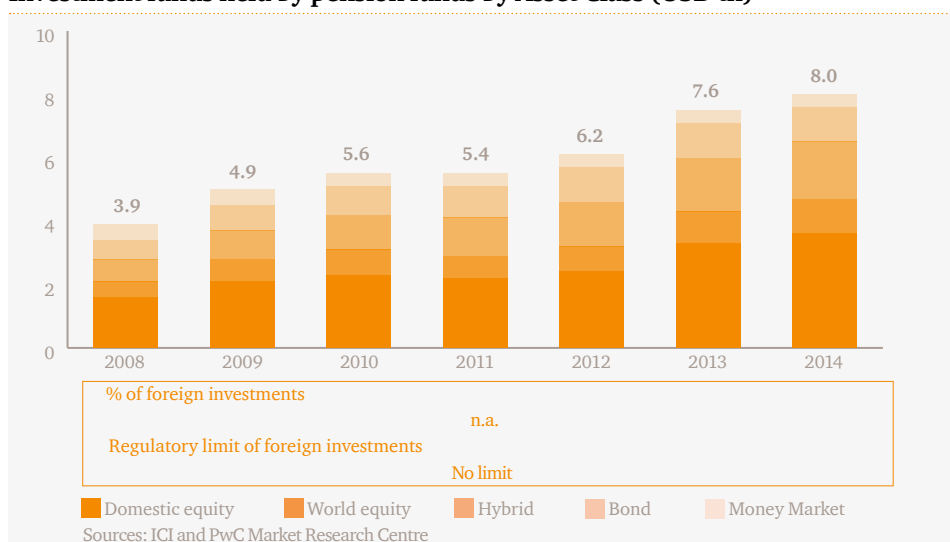
Pension allocation to equities/domestic market cap ratio: 53%



Evolution of Total Assets of Pension Funds by Asset Class (USD tn)



Investment funds held by pension funds by Asset Class (USD tn)



Largest Pension Funds in the United States

#	Pension fund	AuM 2014 (USD bn)	Market share (2014)
1	Federal retirement thrift	353.5	1.4%
2	California Public Employees	279.3	1.1%
3	California State Teachers	170.8	0.7%
4	Florida State Board	161.1	0.7%
5	New York State Common	158.7	0.6%
6	New York City Retirement	139.9	0.6%
7	Texas Teachers	113.6	0.5%
8	New York State Teachers	96.9	0.4%
9	Boeing	92.6	0.4%
10	IBM	90.6	0.4%
	Total	1,657.0	6.7%



Other Countries*

France

In France, the actual retirement scheme is built around repartition instead of capitalisation. However, the Pension Reserve Fund (“Fonds de Réserve pour les Retraites” – FRR) was set up in 2001 to ensure the financial stability of the state pension system (PAYG). Today, the FRR has EUR 37.2 bn AuM and has achieved an annualised performance of assets of 4.16% since June 2004.

The FFR portfolio is composed of 53% bonds and cash, 34% equities and around 8% debt. Moreover, the fund’s 2014 annual report indicated that 15% of its investments were made through investment funds. Initially, the fund was meant to guarantee the financial health of the CNAV (National Pension Insurance Bank), Cancava (Pension Bank of craftsmen) and Organic (pension bank for traders), with the objective of reaching EUR 150 bn by 2020, the year in which payments are scheduled to begin.

Ireland

Irish pension assets were the equivalent of 52% of the country’s EUR 174.8bn GDP at year end 2013. The ratio of pension assets to GDP has been increasing rapidly since 2009 as pension assets grew at a 4-year CAGR of 6.1%, much faster than GDP growth (4-year CAGR of 0.9%).

The pension market in Ireland is well developed with AuM of EUR 91.5bn (USD 125.5bn) in 2013; 64% of that was Defined Benefit (DB) schemes. The asset allocation of Irish pension funds is well diversified with 50% invested in equities, 31% in bonds, 10% in money market products and 9% in alternative investments. The assets of Irish pension funds allocated to equities are equivalent to 37% of the total market capitalisation of listed domestic companies.

Regarding the use of investment funds, with 1,729 cross-border UCITS funds distributed in Ireland as at the end of 2014 and 261 new registrations during 2014, the Irish market is quite open to foreign investment funds.

Singapore

In Singapore, the public pension fund market is regulated by a government authority called the Central Pension Fund (CPF). The CPF regulates not only retirement schemes, but also healthcare, home ownership and insurance schemes for family protection. In 2011, the CPF held USD 160.3bn in AuM and invested around 95% of its total assets in government bonds – which are issued by the government and only available for purchase by the CPF. The remainder of the CPF’s investments were directed to advance deposits (around 4%), Statutory Board bonds, corporate bonds and Singaporean equities. Overall, Singapore’s pension fund assets are invested in local non-marketable bonds with a very small percentage of portfolios allocated to bank deposits.

* Limited data available

Contacts



Dariush Yazdani

Partner
+352 621 33 2191
dariush.yazdani@lu.pwc.com



Grégory Weber

Director
+352 621 33 6175
gregory.weber@lu.pwc.com

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